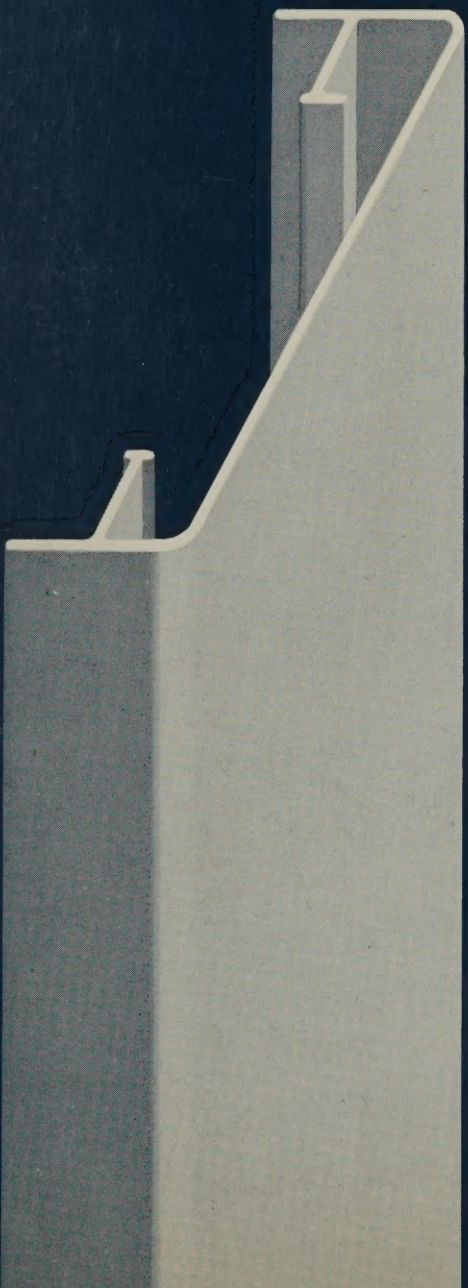




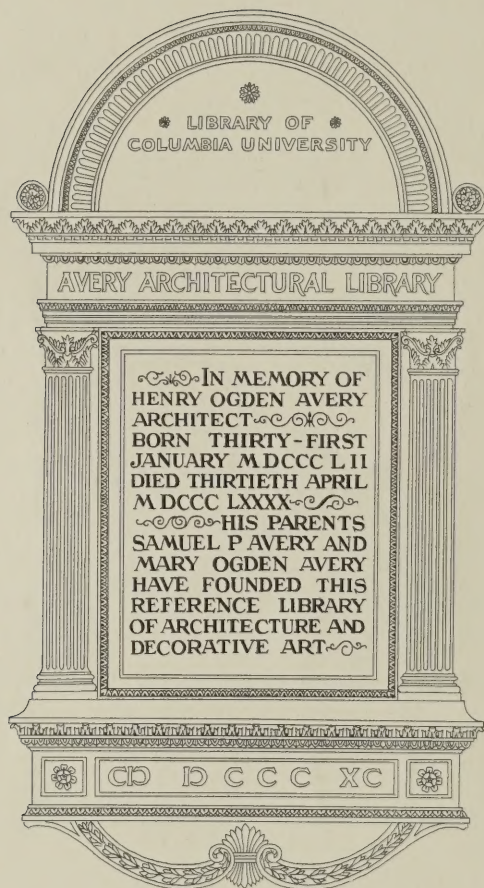
ALCOA ALUMINUM

THE ARCHITECT'S METAL

*Available from distributors
and jobbers stocks*



AVERY
CLASSICS
AT
265
AB1
196-7



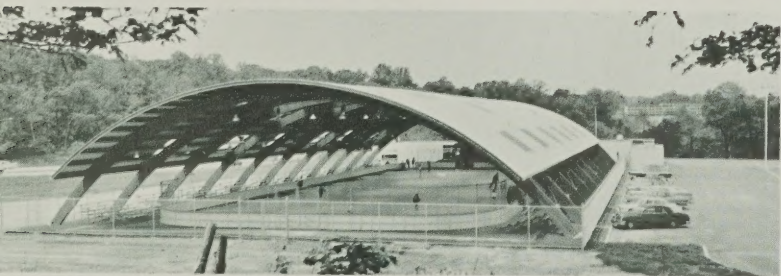
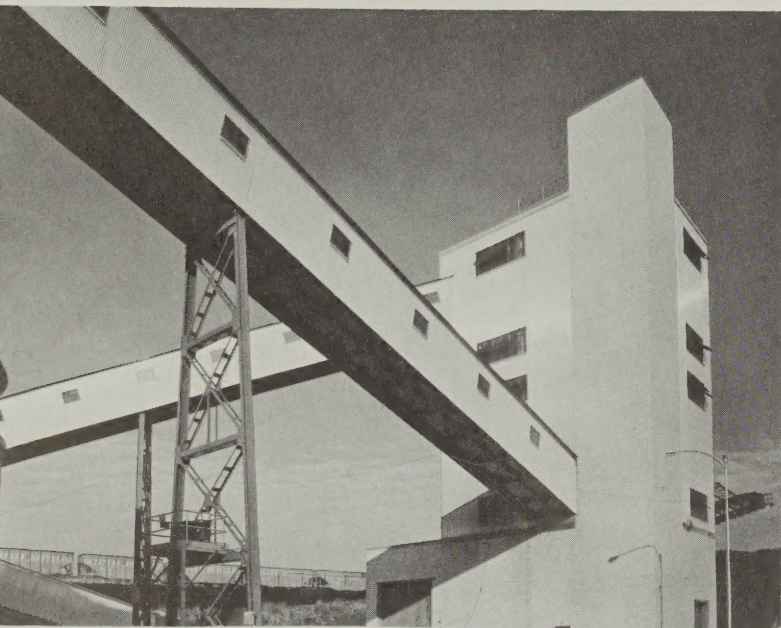
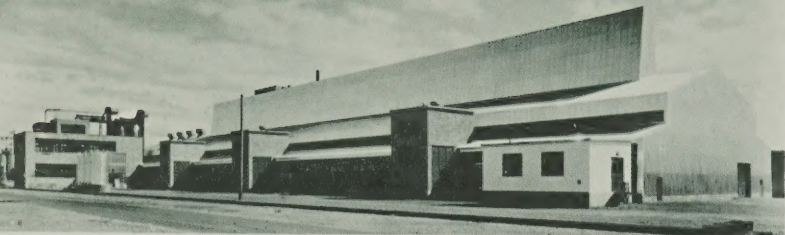
industrial building products



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Gene Myers



ALCOA ALUMINUM INDUSTRIAL BUILDING PRODUCTS

are

- COMPETITIVE IN FIRST COST
- RESISTANT TO CORROSION
- LOW IN MAINTENANCE
- LONG LASTING
- ATTRACTIVE IN APPEARANCE
- QUICKLY ERECTED
- EASY TO HANDLE
- HIGH IN HEAT REFLECTIVITY

performance

FOR GENERAL INDUSTRIAL BUILDINGS

During the past quarter century, Alcoa® Aluminum Industrial Roofing and Siding products have found increasing acceptance in the field of industrial building because of their excellent weathering qualities. They have been regularly selected for their remarkable resistance to atmospheres contaminated by common corrosives such as hydrogen sulfide, carbon dioxide, hydrogen chloride and various dusts in combination with moisture. As a result, the products are today a standard building solution for the coal and coke business; for soda ash, sulfur, paper, naval stores and power plants; for the petroleum, petrochemical, metallurgical, fertilizer, organic and inorganic chemical industries.

FOR SEACOAST INDUSTRIAL BUILDINGS

Even in seacoast areas, where metal is subjected to the corroding effects of salt spray, the fine performance record of Alcoa Industrial Building Products has made them especially desirable for seacoast applications. In this atmosphere the aluminum products have rendered satisfactory service as retractable belt conveyor covers and roof ventilators, as well as roofing and siding. Long life and freedom from maintenance have won aluminum this place in a field formerly troubled by rapidly deteriorating materials.

SPECIAL GRADE OF ALUMINUM

All Alcoa Industrial Building Sheet is made from alclad aluminum, a special grade of metal which withstands weathering in industrial and seacoast atmospheres to a remarkable degree. Extensive 20-year tests indicate that weather effects on alclad products are 45 to 60 per cent less than on regular architectural aluminum, itself a highly corrosion-resistant metal. In the manufacturing of alclad aluminum sheet an aluminum core alloy is thinly clad with another aluminum alloy. This cladding is anodic to the core alloy, which, through an electro-chemical action, protects the core and confines weathering to the cladding. For the building owner this feature adds many years to the life of his exterior aluminum.

appearance

ALUMALURE FINISH

Alcoa Alunalure® finish is a baked-on synthetic enamel offered in nine handsome colors on industrial roofing and siding products. This economical finish adds low-cost and high-quality color to all the inherent advantages of aluminum.

The Alunalure colors have excellent resistance to weathering. Existing installations, as well as accelerated laboratory tests, indicate many years of life without peeling, chipping or flaking. As with all organic coatings, the color and gloss of these finishes will change gradually. However, the Alunalure finishes have been selected from the best organic coatings commercially available with respect to workability, color and gloss retention, resistance to chalking and other important appearance characteristics.

An Alunalure finish is tough, too! Just how tough is proved by the subsequent fabricating process employed on industrial building sheet. The Alunalure finish, along with an enamel back coating, is uniformly applied to aluminum sheet and oven-baked when still in coil form. The enameled sheet then is embossed with a stucco pattern and formed into ribbed or V-beam configurations (corrugated available on special inquiry). What is more, the painted sheet can be cut, drilled or bent on the job without chipping adjacent enamel areas.

Alunalure color on industrial building products broadens their use. Industrial firms are employing them for a sparkling look on new structures or for re-siding old plants. Commercial and public buildings of many kinds—shopping centers, stores, gas stations, schools, arenas—are also utilizing the Alunalure finish for distinctive and appealing results. Yet, the cost is only a few pennies per square foot more than the natural aluminum sheet.

SPECIFICATION

An Alunalure finish may be specified using the product descriptions listed in the specification under "Materials—Roofing and Siding," page 26, provided the Alunalure color name and number are included. If desired, more detailed finish data can be added to the product description as follows:

The paint finish as specified herein shall be applied to one side only with a standard back coating applied to the reverse side.

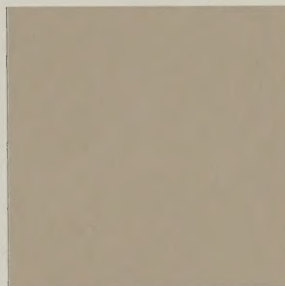
The aluminum shall be pretreated with a chemical conversion coating prior to painting. The finish paint shall be applied by the reverse roll-coat method to the pretreated aluminum while in coil form and shall be oven-baked. The surface shall be commercially smooth and substantially free from flow lines, streaks, blisters or other surface imperfections. The paint coatings shall meet the following performance requirements:

1. GLOSS AT 60° (when measured on a plain, flat panel)—30-40% for aluminum-pigmented enamels and 70-80% for nonaluminum-pigmented enamels.
2. HUMIDITY—withstand 1,000 hours exposure in 100% relative humidity at 100° F in accordance with U.S. Military Specification JAN-H-792.
3. SALT SPRAY—resist corrosion when exposed to 1,000 hours in 5% salt spray in accordance with ASTM B117-62.
4. ACCELERATED WEATHER EXPOSURE—show no checking, cracking or loss of adhesion after exposure for 1,000 hours in Atlas Type DMC Weather-Ometer operated in accordance with ASTM D822-60.

NATURAL COLOR

Alcoa Aluminum Industrial Building Products are also available in natural color in plain Mill Finish and in Alcoa Stucco Pattern No. E-5 (embossed both sides). Where a dull appearance is required, sheet with a Low Specular Gloss finish is available, having a gloss of 10 or less, as measured in accordance with ASTM D-523 at an 85° angle.

Alunalure Finish is available on stucco-embossed Pattern E-5 only.



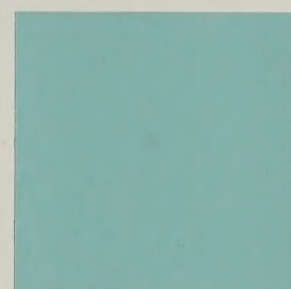
Sandstone Gray—E-257



Ermine White—E-277



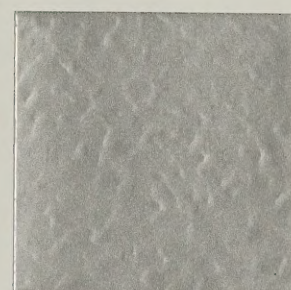
Spruce Green—E-377-75



Polar Blue—E-477-75



Viking Blue—E-495



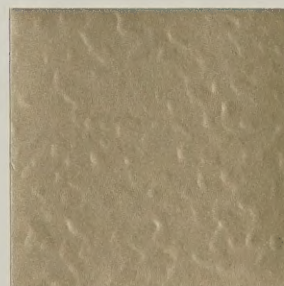
Cambridge Gray—E-295-X



Silver Green—E-375-X



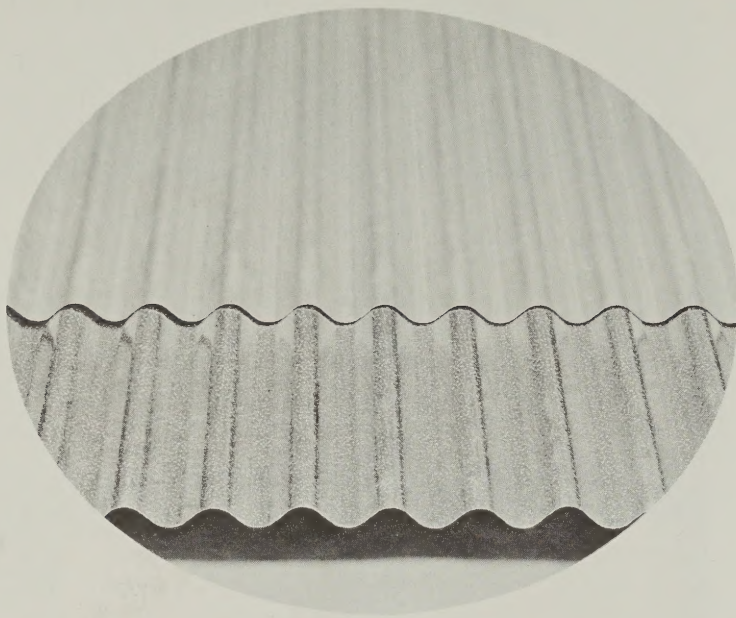
Pacific Blue—E-455-X



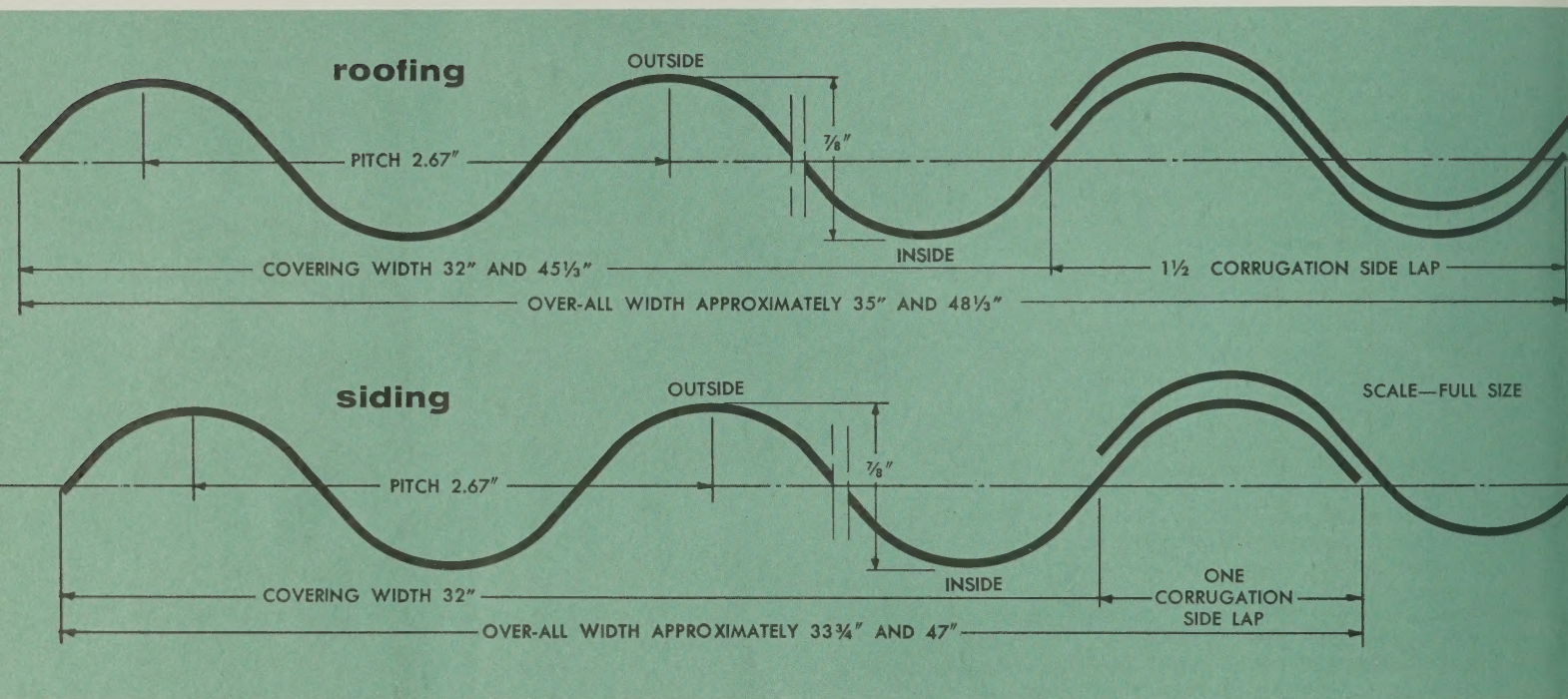
Antique Gold—F-677-X

For additional product information, see also:

Alcoa Aluminum in Architecture Catalog $\frac{6a}{ALu}$ • Alcoa Exterior Wall Products Catalog $\frac{3b}{ALu}$ • Alcoa Gravel Stops and Copings Catalog $\frac{8g}{AL}$



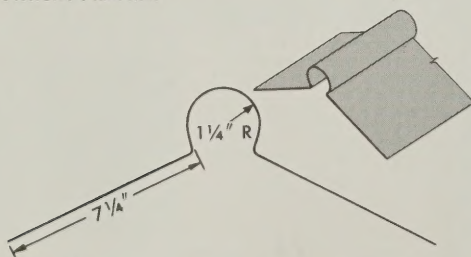
ALCOA ALUMINUM CORRUGATED INDUSTRIAL SHEET



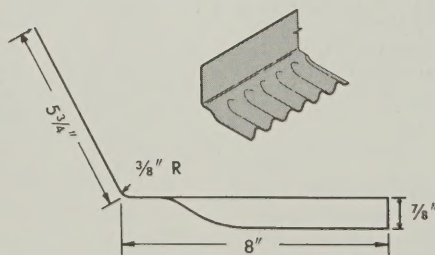
preformed flashing

Available for use with corrugated sheet. See also FIELD-FORMED FLASHING, page 23.

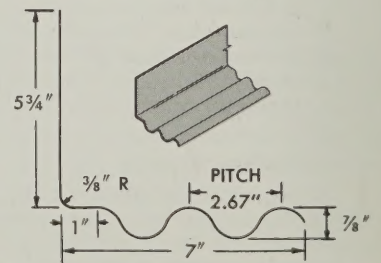
THICKNESS: 0.032"
FINISH: Plain mill



PLAIN RIDGE ROLL
LENGTH: 96"



END WALL FLASHING
LENGTH: 42"



SIDE WALL FLASHING
LENGTH: 96"

description

THICKNESS	0.024" and 0.032"
LENGTHS	0.024" thickness; 3 feet through 30 feet 0.032" thickness; 3 feet through 30 feet
WIDTHS	ROOFING, 1½ corrugation side lap 35" over-all—32" coverage 48½" over-all—45½" coverage SIDING, 1 corrugation side lap 33¾" over-all—32" coverage 47" over-all—45½" coverage
CORRUGATION	2.67" pitch; ⅞" depth
WEIGHTS	0.024" thick—41.4 lbs per 100 sq ft 0.032" thick—55.2 lbs per 100 sq ft
FINISHES	Plain Mill No. E-5 Stucco Pattern Low specular gloss—(specular gloss reading of 10 or less in accordance with ASTM Standard D-523 at an angle of 85 degrees)
COLORS	Natural Aluminum ALUMALURE FINISH—Available in 9 attractive colors on special inquiry. (See page 3)

NOTE: Above dimensions are nominal.

loading table

DESIGN LOAD, LB PER SQ FT	MAXIMUM RECOMMENDED SPAN LENGTH, INCHES			
	ONE OR TWO SPANS		THREE OR MORE SPANS	
	0.024" Thickness	0.032" Thickness	0.024" Thickness	0.032" Thickness
20	80	91	89	102
25	71	84	79	94
30	65	77	73	86
35	60	71	67	79
40	56	67	63	75
45	53	63	59	70
50	50	60	56	67

closures

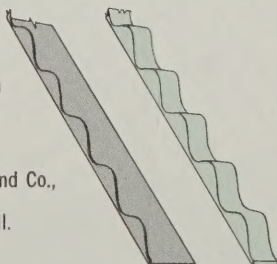
Made to fit contours of either side of Alcoa Corrugated Industrial Sheet

LENGTH: 32" or 12 corrugations.

ALUMINUM CLOSURES: Available from Alcoa in 0.032" thick sheet only.

PREFORMED RUBBER CLOSURES:

Available from—
Fabricated Products Division, Townsend Co.,
West Newton, Pa.
Asphalt Corp. of America, Danville, Ill.



weight and coverage table

SHEET LENGTH FEET	POUNDS PER SHEET *0.032 inch thickness				AREA PER SHEET SQUARE FEET			
	ROOFING		SIDING		ROOFING		SIDING	
	35"	48½"	33¾"	47"	35"	48½"	33¾"	47"
3	4.83	6.67	4.66	6.49	8.75	12.08	8.44	11.75
3½	5.64	7.78	5.44	7.57	10.21	14.10	9.85	13.71
4	6.44	8.89	6.21	8.72	11.67	16.11	11.25	15.80
4½	7.25	10.01	6.99	9.73	13.13	18.13	12.66	17.63
5	8.05	11.12	7.76	10.81	14.58	20.14	14.06	19.58
5½	8.85	12.23	8.54	11.89	16.04	22.15	15.47	21.54
6	9.66	13.34	9.32	12.97	17.50	24.17	16.88	23.50
6½	10.47	14.45	10.09	14.05	18.96	26.18	18.28	25.46
7	11.27	15.56	10.87	15.14	20.42	28.19	19.69	27.42
7½	12.08	16.68	11.65	16.22	21.88	30.21	21.10	29.38
8	12.88	17.79	12.42	17.29	23.33	32.22	22.50	31.33
8½	13.68	18.90	13.20	18.38	24.79	34.24	23.91	33.29
9	14.49	20.01	13.97	19.46	26.25	36.25	25.31	35.25
9½	15.30	21.12	14.75	20.54	27.71	38.26	26.72	37.21
10	16.10	22.23	15.53	21.62	29.17	40.28	28.13	39.17
10½	16.91	23.34	16.30	22.70	30.63	42.29	29.53	41.13
11	17.71	24.46	17.08	23.78	32.08	44.31	30.94	43.08
11½	18.51	25.57	17.86	24.86	33.54	46.32	32.35	45.04
12	19.32	26.68	18.63	25.94	35.00	48.33	33.75	47.00
12½	20.13	27.79	19.41	27.03	36.46	50.35	35.16	48.96
13	20.93	28.90	20.18	28.11	37.92	52.36	36.56	50.92
13½	21.74	30.02	20.96	29.19	39.38	54.38	37.97	52.88
14	22.54	31.13	21.74	30.27	40.83	56.39	39.38	54.83
14½	23.34	32.24	22.51	31.35	42.29	58.40	40.78	56.79
15	24.15	33.35	23.29	32.43	43.75	60.42	42.19	58.75
15½	24.96	34.46	24.07	33.51	45.21	62.43	43.60	60.71
16	25.76	35.57	24.84	34.59	46.67	64.44	45.00	62.67
16½	26.57	36.68	25.62	35.68	48.13	66.45	46.41	64.63
17	27.37	37.80	26.39	36.75	49.58	68.47	47.81	66.58
17½	28.17	38.91	27.17	37.83	51.04	70.49	49.22	68.54
18	28.98	40.02	27.95	38.92	52.50	72.50	50.63	70.50
18½	29.79	41.13	28.72	40.00	53.96	74.51	52.03	72.46
19	30.59	42.24	29.50	41.08	55.42	76.53	53.44	74.42
19½	31.40	43.35	30.28	42.16	56.88	78.54	54.85	76.38
20	32.20	44.47	31.05	43.24	58.33	80.56	56.25	78.33
20½	33.00	45.58	31.83	44.32	59.79	82.57	57.66	80.29
21	33.81	46.69	32.60	45.40	61.25	84.58	59.06	82.25
21½	34.62	47.80	33.38	46.48	62.71	86.60	60.47	84.21
22	35.42	48.91	34.16	47.57	64.17	88.61	61.88	86.17
22½	36.23	50.03	34.93	48.65	65.63	90.63	63.28	88.13
23	37.03	51.14	35.71	49.72	67.08	92.64	64.69	90.08
23½	37.83	52.25	36.49	50.81	68.54	94.65	66.10	92.04
24	38.64	53.36	37.26	51.89	70.00	96.67	67.50	94.00
24½	39.45	54.47	38.04	52.97	71.46	98.68	68.91	95.96
25	40.25	55.58	38.81	54.05	72.92	100.69	70.31	97.92
25½	41.06	56.70	39.59	55.13	74.38	102.71	71.72	99.88
26	41.86	57.81	40.37	56.21	75.83	104.72	73.13	101.83
26½	42.66	58.92	41.14	57.29	77.29	106.74	74.53	103.79
27	43.47	60.03	41.92	58.37	78.75	108.75	75.94	105.75
27½	44.28	61.14	42.70	59.46	80.21	110.76	77.35	107.71
28	45.08	62.25	43.47	60.54	81.67	112.78	78.75	109.67
28½	45.89	63.36	44.25	61.62	83.13	114.79	80.16	111.63
29	46.69	64.48	45.02	62.70	84.58	116.81	81.56	113.58
29½	47.49	65.59	45.80	63.78	86.04	118.82	82.97	115.54
30	48.30	66.70	46.58	64.86	87.50	120.83	84.38	117.50


*NOTE: For 0.024 corrugated weight per sheet use factor of 0.75 x 0.032" value.

CORRUGATED INDUSTRIAL SHEET

corrugated roofing installation

for slopes 3" in 12" and steeper

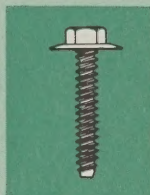
FASTENERS


- A. Sheet fasteners** (indicated by ) should be spaced every fourth high corrugation (10 3/4"). For extreme wind conditions, space them every third corrugation (8"). The following types are recommended.

Self-tapping screw*
No. 14 x 1 3/4", recessed hex head type "B," stainless steel alloy 305, cadmium plated, with aluminum and neoprene washers or with integral metal washer and conical neoprene washer

or


Nelson Setlok Fastener, stainless steel alloy 304, with aluminum cap.



- B. Sidelap fasteners** (indicated by ) should be spaced not more than 12" on center.

Aluminum sheet metal screw*
No. 12 x 3/4"; slotted pan-head type "A"



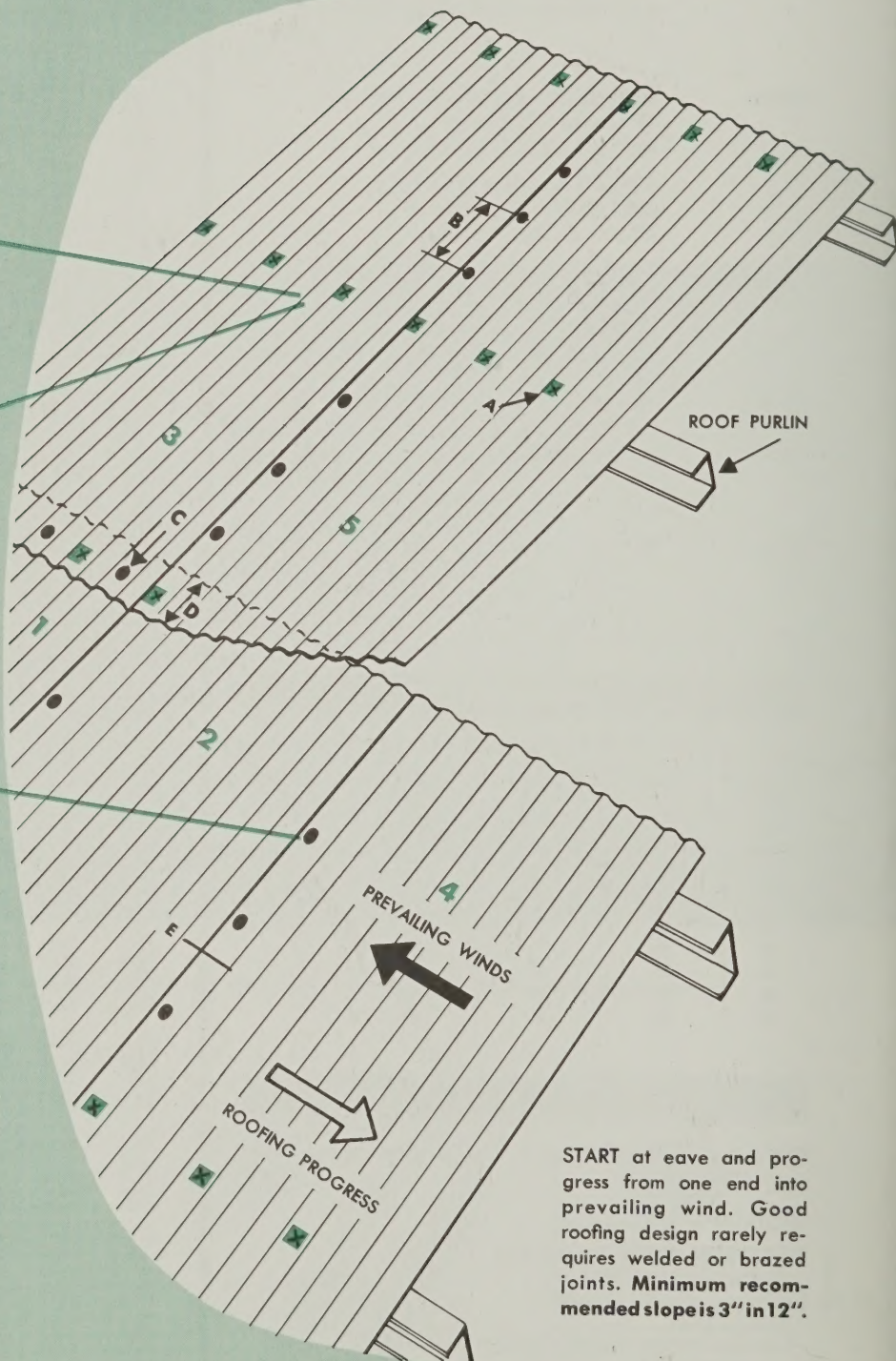
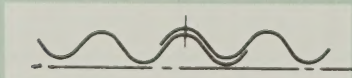
- C. Endlap fasteners** (indicated by ) should be spaced midway between sheet fasteners not more than 2" from end of overlapping sheet. (Same screw as at sidelap.)

NOTE: All sheet and lap fasteners should be installed through the high corrugation only.

*See FASTENERS on page 24.

LAPS

- D. Endlap** should be a minimum of 6".
- E. Sidelap** should be 1 1/2 corrugations and should be laid away from prevailing winds.

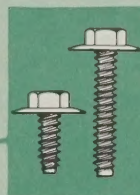


START at eave and progress from one end into prevailing wind. Good roofing design rarely requires welded or brazed joints. **Minimum recommended slope is 3" in 12".**

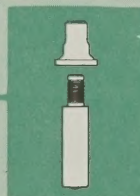
corrugated siding installation

FASTENERS

A. Sheet fasteners (indicated by X) should be spaced every fourth corrugation ($10\frac{3}{4}$ "). For extreme wind conditions, space them every third corrugation (8"). These fasteners may be installed in high or low corrugation. The following types are recommended.



Self-tapping screw*
No. 14 x 1" or No. 14 x 1½", recessed hex head type "B," stainless steel alloy 305, cadmium plated, with aluminum and neoprene washers or with integral metal washer and conical neoprene washer



Nelson Setlok Fastener, stainless steel alloy 304, with aluminum cap.

or

Fasteners at end laps should be located not more than 2" from the end of the overlapping sheet. All steel that directly contacts bare aluminum should be painted with a quality paint system.

SIDING GIRT

B. Sidelap fasteners (indicated by •) should be spaced not more than 12" on center.



Aluminum sheet metal screw*
No. 12 x ¾"; slotted panhead type "A"

C. Endlap fasteners (indicated by •) should be spaced midway between sheet fasteners not more than 2" from end of overlapping sheet. (Same screw as at sidelap.)

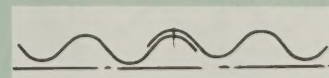
NOTE: All sidelap and endlap fasteners should be installed through the high corrugation.

*See FASTENERS on page 24.

LAPS

D. Endlap should be a minimum of 4".

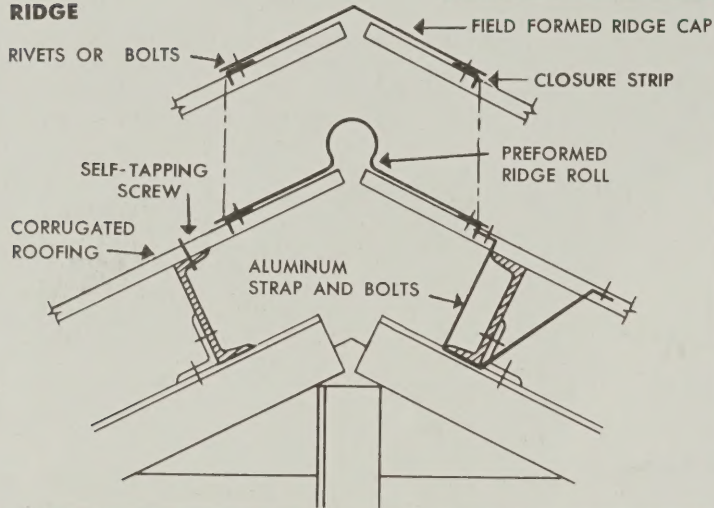
E. Sidelap should be 1 corrugation and should be laid away from prevailing winds.



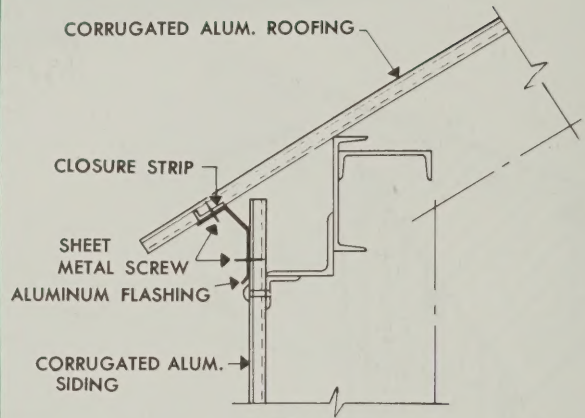
CORRUGATED INDUSTRIAL SHEET

typical details

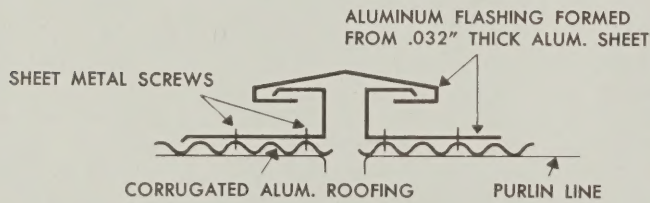
RIDGE



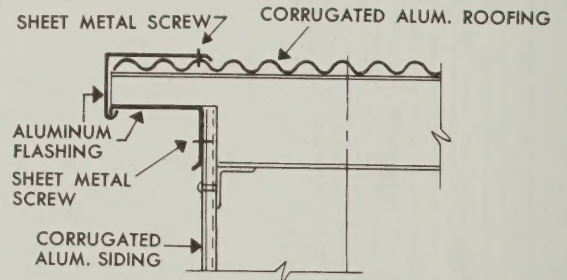
EAVE



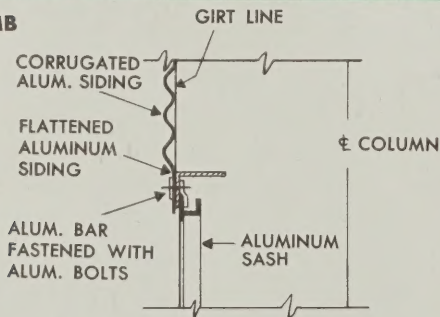
ROOFING EXPANSION JOINT



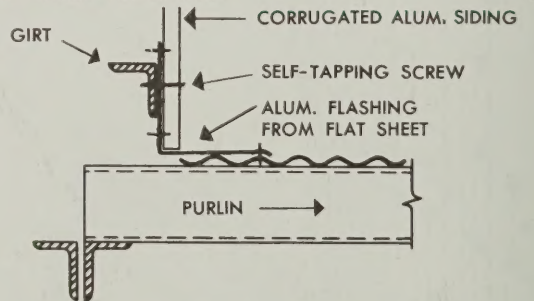
GABLE



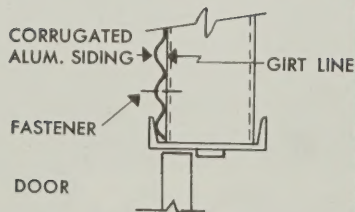
WINDOW JAMB



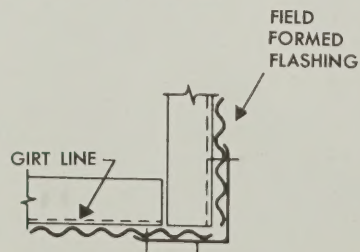
SIDE WALL FLASHING



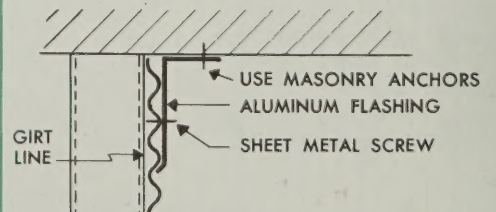
DOOR JAMB

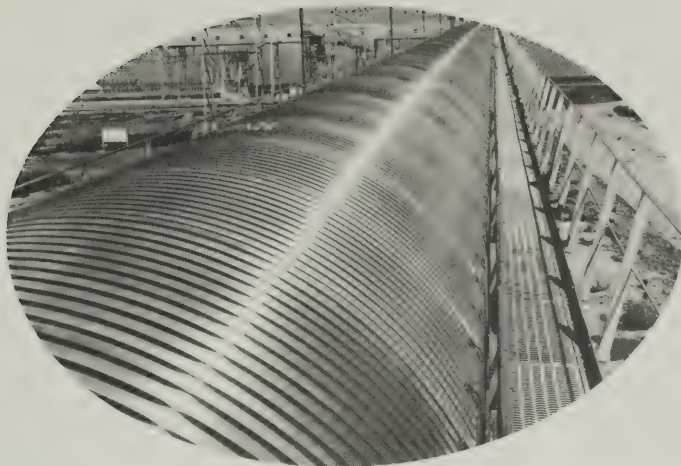


OUTSIDE CORNER



SIDING TO MASONRY JOINT





ALCOA ALUMINUM CURVED CORRUGATED SHEET

description

THICKNESSES:	0.024" and 0.032"
LENGTHS:	3' to 16' inclusive in 6" increments
WIDTHS:	33 $\frac{3}{4}$ " curved sheet—33 $\frac{3}{4}$ " over-all (29 $\frac{1}{2}$ " coverage with special 3 corrugation sidelap). 35" curved sheet—35" over-all (32" coverage with 1 $\frac{1}{2}$ " corrugation sidelap).
CURVATURE RADII:	33 $\frac{3}{4}$ " curved sheet: Maximum—no limit (but laps are wasteful where radius is over 20'); Minimum—18 inches 35" curved sheet: Maximum—no limit; Minimum—20 feet
CORRUGATION:	2.67" pitch; $\frac{7}{8}$ " depth
WEIGHTS:	0.024" thick sheet=41.4 lbs per 100 sq ft 0.032" thick sheet=55.2 lbs per 100 sq ft
FINISHES:	Plain No. E-5 Stucco Pattern

NOTE: Above dimensions are nominal.

installation

FASTENERS

Sheet fasteners should be spaced every fourth corrugation. For extreme wind conditions space them every third corrugation.

Self-tapping screw*: No. 14 x 1 $\frac{1}{4}$ " recessed hex head type "B"; stainless steel alloy 305, cadmium plated; aluminum and neoprene washers.

Sidelap fasteners should be spaced not more than 12" on center.

Aluminum sheet metal screw*: No. 12 x $\frac{3}{4}$ ", slotted panhead type "A."

Endlap fasteners should be spaced midway between sheet fasteners not more than 2" from the end of overlapping sheet. (Same screw as at sidelap.)

NOTE: All sheet and lap fasteners should be installed through the high corrugation only.

LAPS

Endlap should be a minimum of 6".

Sidelap should be as shown below.

*See FASTENERS on page 24.

special features and uses

ECONOMY

Alcoa Curved Corrugated Sheet provides an excellent low-priced product for such specialized industrial applications as storage tanks for asphalt or pitch, or conveyor housings in the sand- or coal-handling industries. When used as protective covers for outdoor conveyor belts, for example, curved sheet eliminates the eave and corner flashing requirements encountered with rectangular, pitched roof housings. Normal erection time and costs are thus reduced.

CURVATURE

The selection of either 33 $\frac{3}{4}$ " or 35" wide curved corrugated sheet depends entirely on the amount of curvature required.

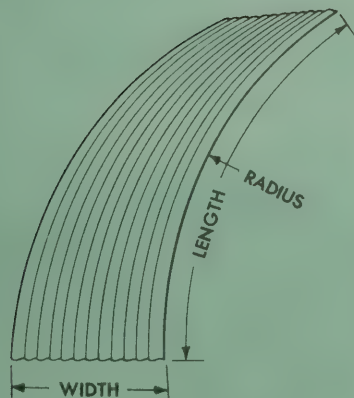
- For installations where the radius of curvature is between 18 inches and 20 feet—use 33 $\frac{3}{4}$ " wide curved sheet.
- For installations where the radius of curvature is 20 feet or greater—use 35" wide curved sheet.

TOLERANCE

All sheets are curved to a tolerance of $\pm 1"$ measured across the chord.

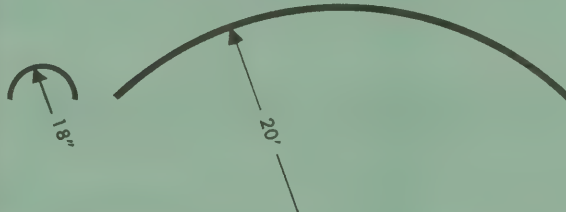
SPECIAL CURVED SHEET

Corrugated sheet curved at one end and corrugated sheet curved to form a complete cylinder are also available subject to special inquiry.



33 $\frac{3}{4}$ " curved sheet

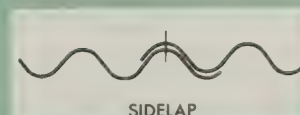
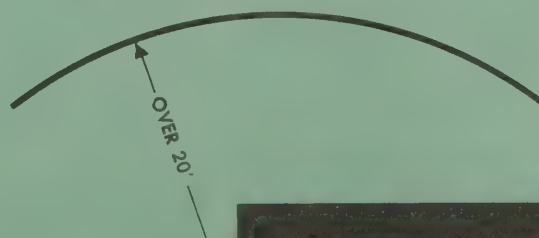
FOR CURVES WITH RADIUS FROM 18" TO 20'



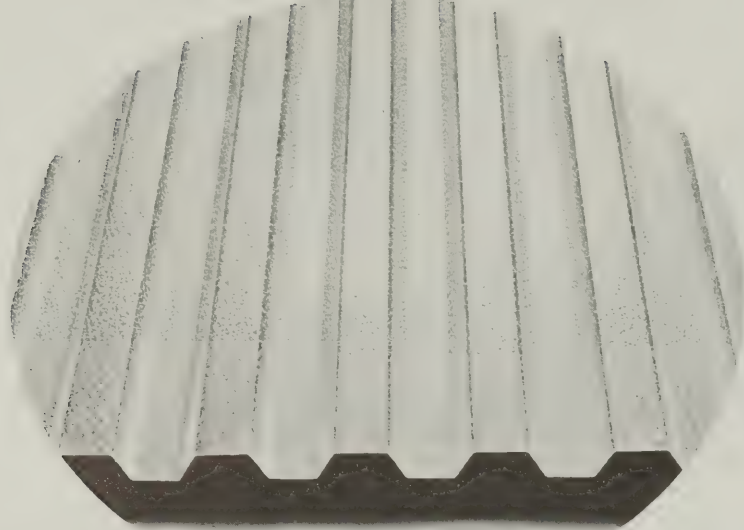
SPECIAL SIDELAP

35" curved sheet

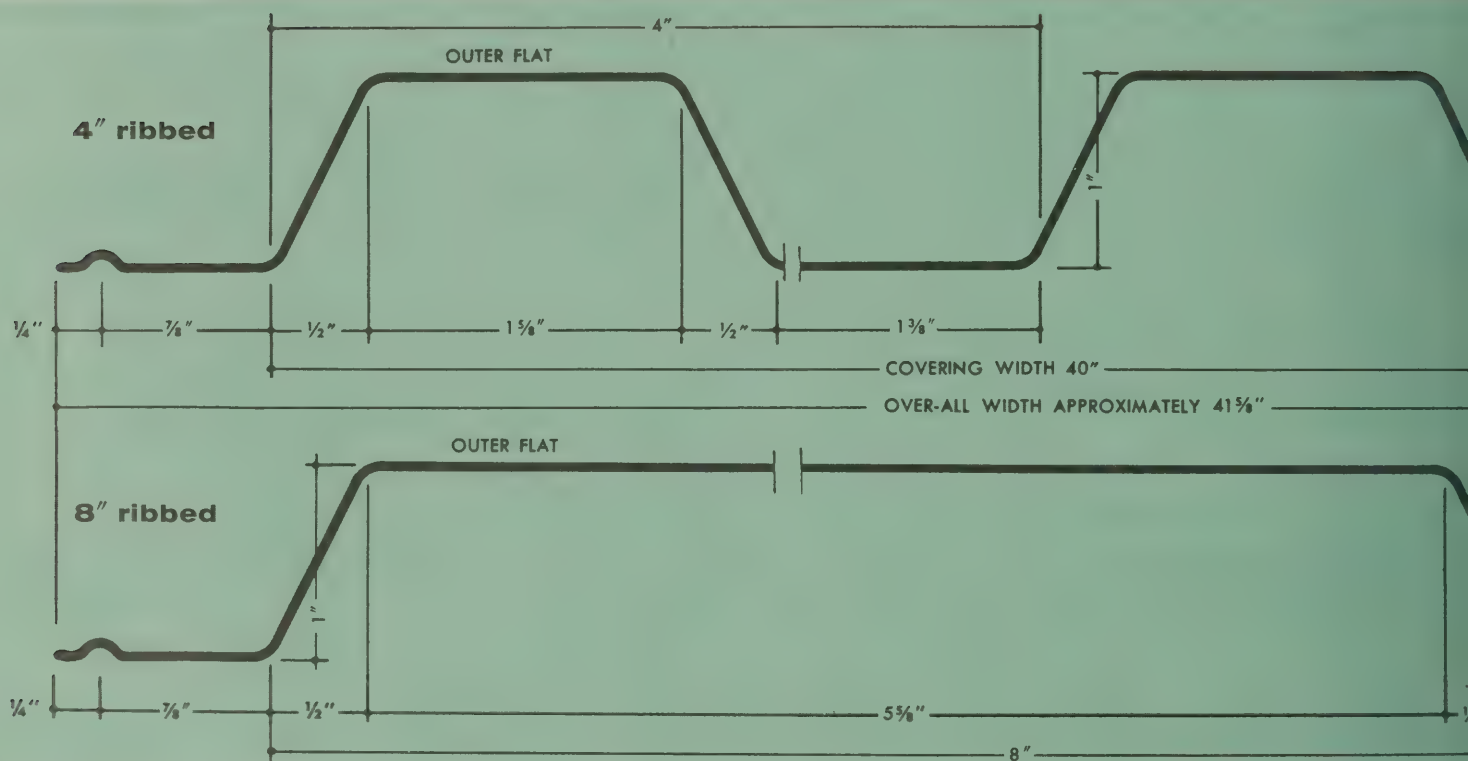
FOR CURVES WITH RADIUS OVER 20'



SIDELAP



ALCOA ALUMINUM RIBBED INDUSTRIAL SIDING



closures

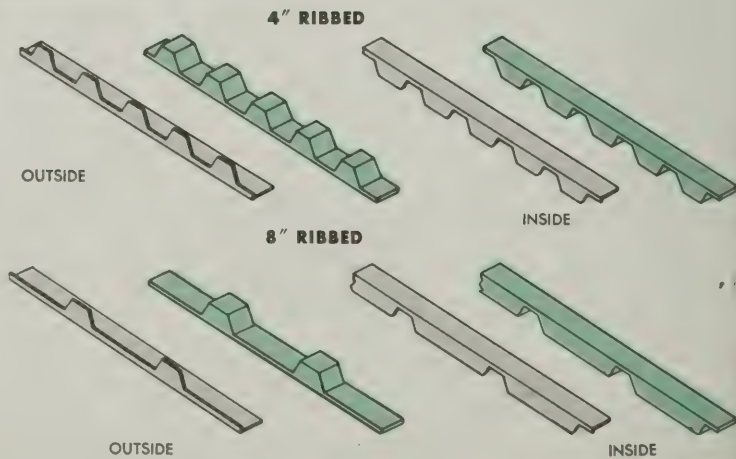
Made to fit contours of both sides of Alcoa Ribbed Industrial Siding.

LENGTH: 40"

ALUMINUM CLOSURES: Available from Alcoa in 0.032" thick sheet only.

PREFORMED RUBBER CLOSURES: Available from—
Fabricated Products Division, Townsend Co., West Newton, Pa.
Asphalt Corp. of America, Danville, Ill.

NOTE: For Flashing, see page 23.



description

THICKNESSES: 0.032" and 0.040"

LENGTHS: 3' to 30'

WIDTH: 41½" over-all (40" coverage with 1 rib sidelap)

RIB: 4" pitch, 1" depth, 1½" wide outer flat; 1½" wide inner flat
8" pitch, 1" depth, 5½" wide outer flat; 1½" wide inner flat

WEIGHT: 4" pitch, 0.032" thickness—57.5 lb per 100 ft

4" pitch, 0.040" thickness—71.8 lb per 100 ft

8" pitch, 0.032" thickness—51.8 lb per 100 ft

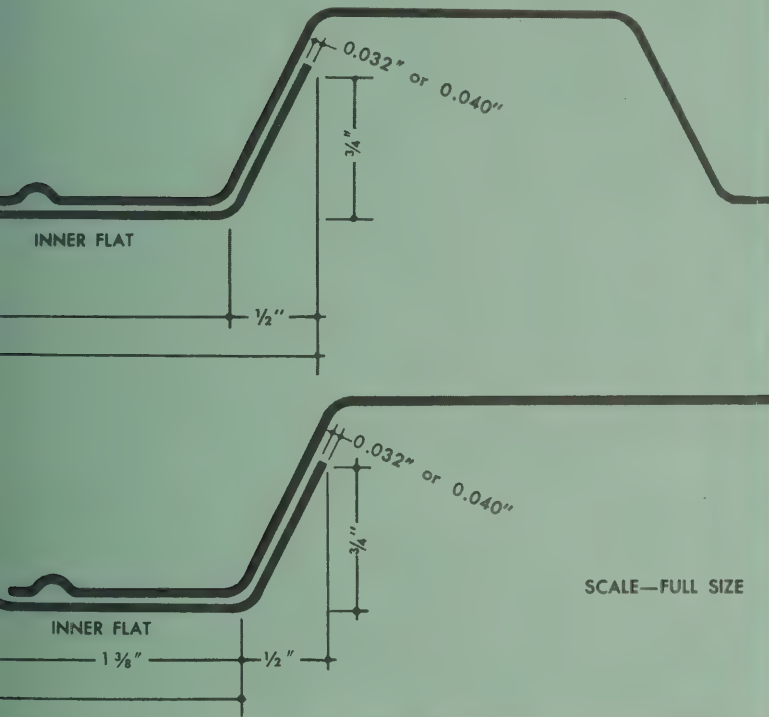
8" pitch, 0.040" thickness—64.8 lb per 100 ft

FINISH: No. E-5 Stucco Pattern

Low specular gloss finish available on special inquiry

COLORS: Natural aluminum

ALUMALURE FINISH—(See page 3)



weight and coverage table

SHEET LENGTH, FEET	POUNDS PER SHEET				AREA PER SHEET, SQ FT	APPROX. NO. SHEETS PER SQ (100 SQ FT)
	4" RIB		8" RIB			
	0.032"	0.040"	0.032"	0.040"		
3	5.99	7.47	5.40	6.75	10.41	9.60
3½	6.98	8.72	6.30	7.87	12.14	8.23
4	7.98	9.97	7.20	8.99	13.88	7.20
4½	8.98	11.21	8.10	10.12	15.61	6.40
5	9.98	12.46	9.00	11.24	17.35	5.78
5½	10.97	13.70	9.90	12.36	19.08	5.26
6	11.97	14.94	10.80	13.48	20.81	4.82
6½	12.97	16.19	11.70	14.61	22.55	4.45
7	13.96	17.43	12.60	15.73	24.28	4.13
7½	14.96	18.68	13.50	16.85	26.01	3.86
8	15.96	19.92	14.40	17.98	27.75	3.61
8½	16.96	21.17	15.31	19.11	29.49	3.40
9	17.95	22.42	16.20	20.23	31.22	3.21
9½	18.95	23.66	17.10	21.35	32.95	3.04
10	19.95	24.91	18.00	22.48	34.69	2.89
10½	20.94	26.15	18.90	23.60	36.42	2.75
11	21.94	27.40	19.81	24.73	38.16	2.63
11½	22.94	28.64	20.70	25.85	39.89	2.51
12	23.94	29.89	21.61	26.98	41.63	2.41
12½	24.93	31.13	22.50	28.10	43.36	2.31
13	25.93	32.38	23.41	29.22	45.10	2.22
13½	26.93	33.62	24.30	30.35	46.83	2.14
14	27.92	34.87	25.20	31.47	48.56	2.07
14½	28.92	36.12	26.11	32.59	50.30	1.99
15	29.92	37.36	27.00	33.72	52.03	1.93
15½	30.92	38.61	27.90	34.84	53.77	1.87
16	31.91	39.85	28.80	35.96	55.50	1.81
16½	32.91	41.10	29.71	37.09	57.24	1.75
17	33.91	42.34	30.61	38.21	58.97	1.70
17½	34.90	43.58	31.50	39.33	60.70	1.65
18	35.90	44.83	32.41	40.46	62.44	1.61
18½	36.90	46.07	33.30	41.58	64.17	1.56
19	37.90	47.32	34.21	42.71	65.91	1.52
19½	38.89	48.57	35.11	43.83	67.64	1.48
20	39.89	49.81	36.01	44.96	69.38	1.44
20½	40.89	51.06	36.91	46.08	71.11	1.41
21	41.89	52.31	37.81	47.21	72.85	1.37
21½	42.88	53.55	38.71	48.33	74.58	1.34
22	43.88	54.79	39.60	49.45	76.31	1.31
22½	44.88	56.04	40.51	50.58	78.05	1.28
23	45.87	57.28	41.41	51.70	79.78	1.25
23½	46.87	58.52	42.30	52.82	81.51	1.23
24	47.87	59.77	43.21	53.95	83.25	1.20
24½	48.87	61.02	44.11	55.07	84.99	1.18
25	49.86	62.26	45.01	56.19	86.72	1.15
25½	50.86	63.51	45.91	57.32	88.45	1.13
26	51.86	64.76	46.81	58.44	90.19	1.11
26½	52.85	66.00	47.71	59.56	91.92	1.09
27	53.85	67.25	48.61	60.69	93.66	1.07
27½	54.85	68.49	49.51	61.81	95.39	1.05
28	55.85	69.74	50.41	62.94	97.13	1.03
28½	56.84	70.98	51.31	64.06	98.86	1.01
29	57.85	72.23	52.21	65.19	100.60	.99
29½	58.84	73.47	53.11	66.31	102.33	.89
30	59.83	74.72	54.01	67.43	104.06	.96

loading table

DESIGN LOAD, LB PER SQ FT	MAXIMUM RECOMMENDED SPAN LENGTH, INCHES							
	ONE OR TWO SPANS				THREE OR MORE SPANS			
	4" Ribbed		8" Ribbed		4" Ribbed		8" Ribbed	
	0.032"	0.040"	0.032"	0.040"	0.032"	0.040"	0.032"	0.040"
	Thick.	Thick.	Thick.	Thick.	Thick.	Thick.	Thick.	Thick.
20	109	124	73	86	122	139	81	96
25	98	115	65	77	110	129	72	86
30	89	108	60	70	100	121	67	78
35	83	100	55	65	93	112	61	72
40	77	93	52	61	86	104	58	68
45	73	88	49	57	81	98	55	63
50	69	83	46	54	77	93	51	60

ribbed siding installation

FASTENERS

A. Sheet fasteners (indicated by X) should be spaced every other rib-valley or low corrugation (8"). At endlaps they should be kept not more than 3" from end of overlapping sheet.



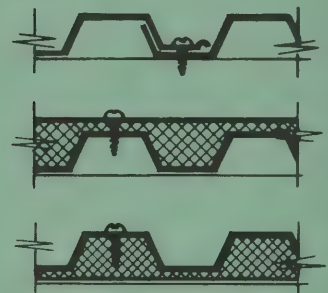
Self-tapping screw*
No. 14 x 1" recessed hex head type "B," stainless steel alloy 305, cadmium plated, with aluminum and neoprene washers or with integral metal washer and conical neoprene washer

B. Sidelap fasteners (indicated by •) should be spaced not more than 12" on center and installed through the rib-valley only.

These screws are also used to fasten flashing and closures.



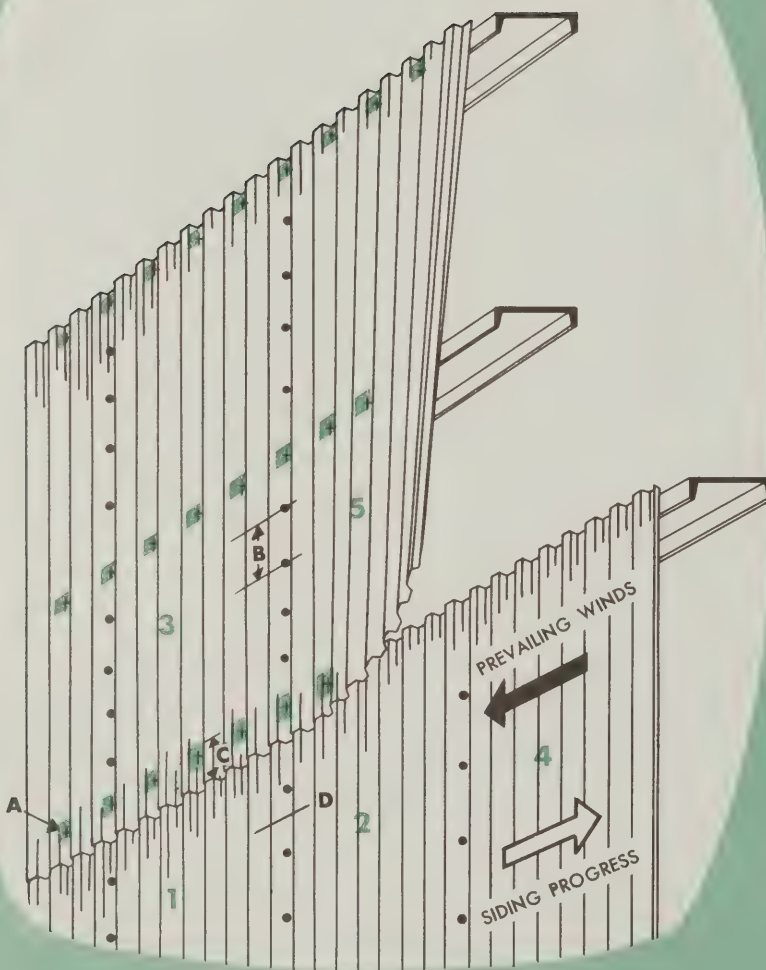
Aluminum sheet metal screw*
No. 12 x 3/4"; slotted panhead type "A"



LAPS

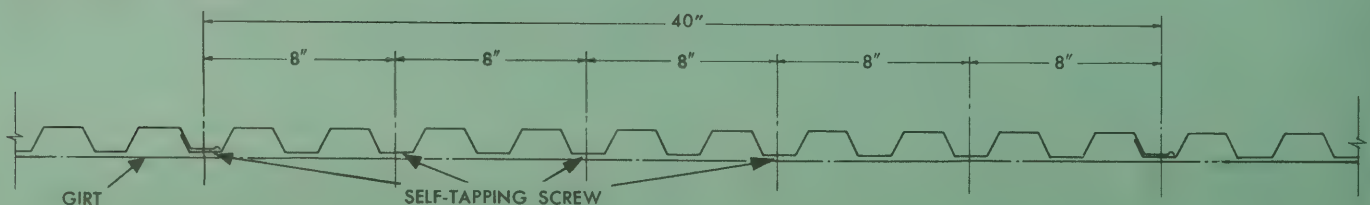
C. Endlap should be a minimum of 4".

D. Sidelap should be 1 rib and should be laid away from prevailing winds.

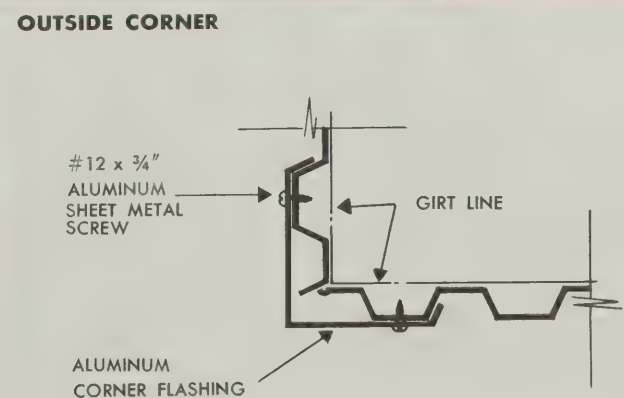
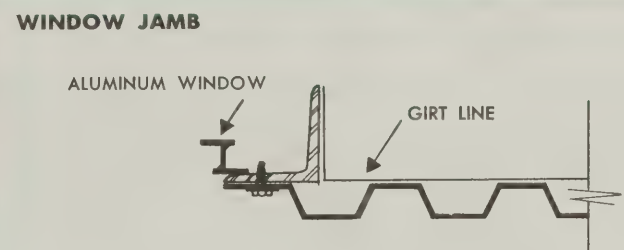
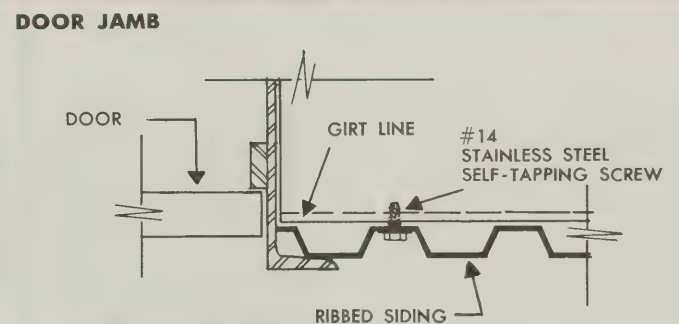
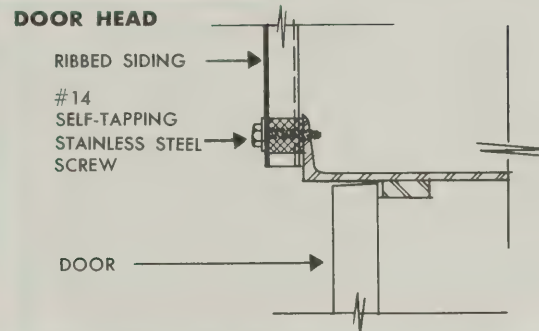
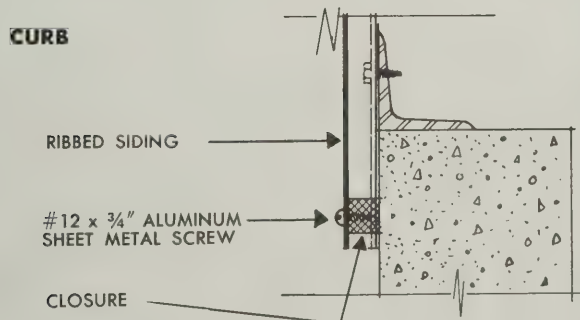
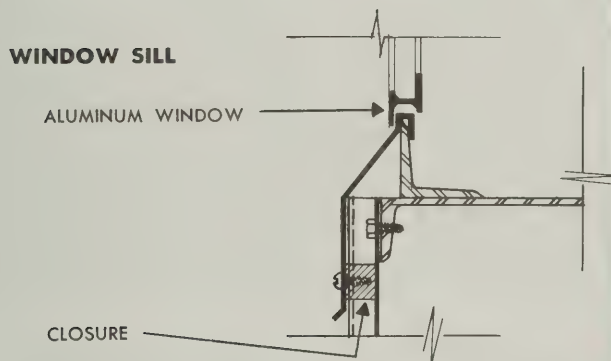
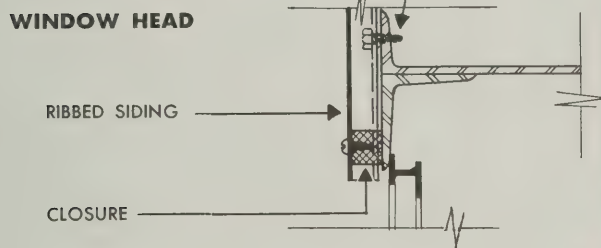
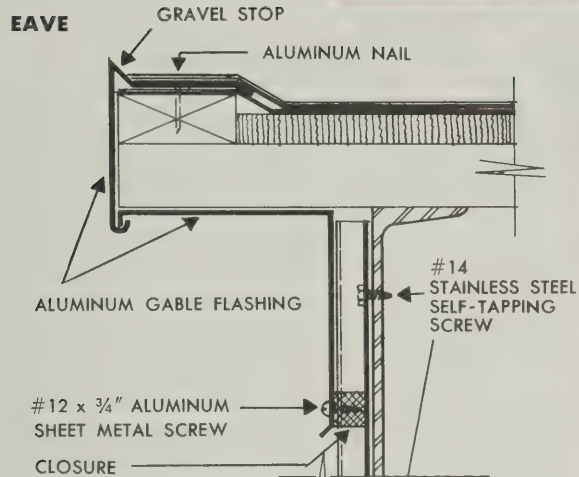


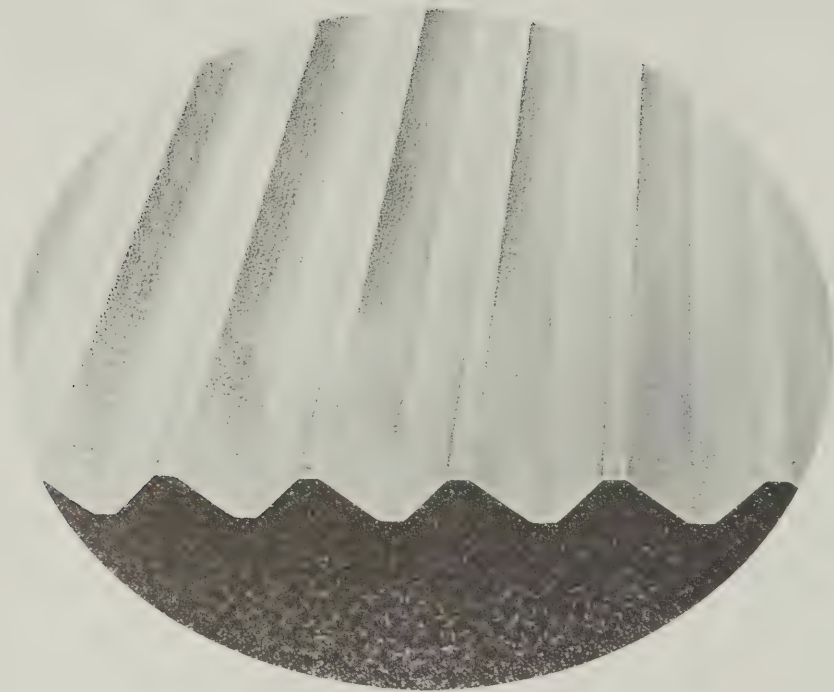
*See FASTENERS on page 24.

PLAN OF GIRT FASTENERS

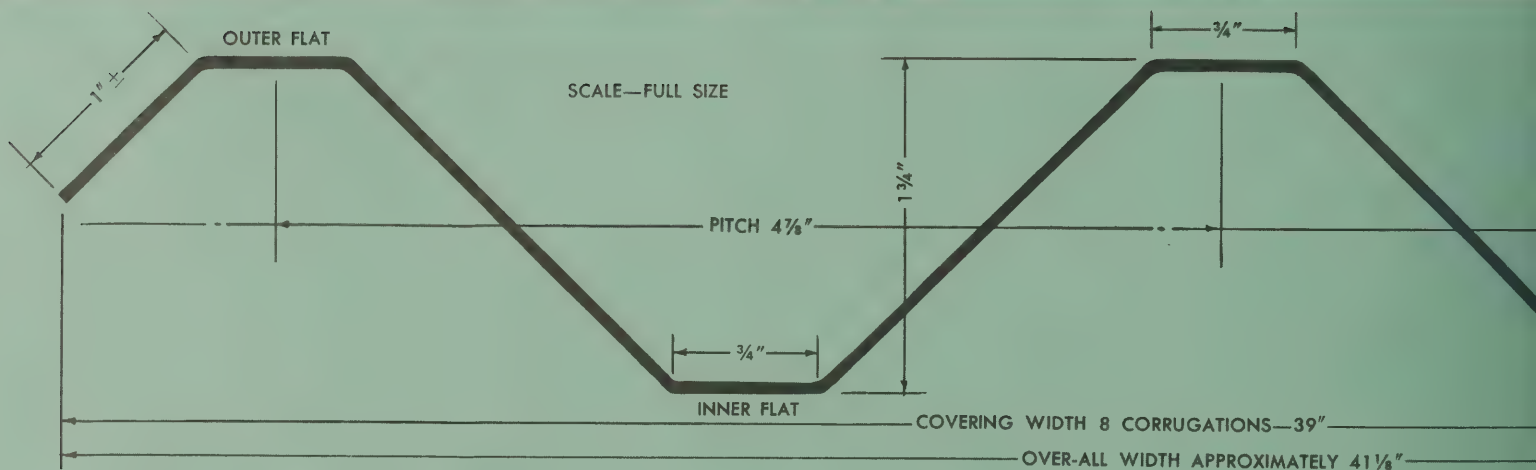


typical details





ALCOA ALUMINUM V-BEAM ROOFING AND SIDING



closures

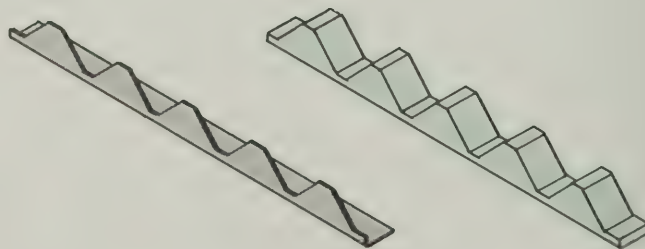
Made to fit contours of Alcoa V-Beam Sheet

LENGTH: 39" or 8 V-corrugations.

ALUMINUM CLOSURES: Available from Alcoa in 0.040" thick sheet only.

PREFORMED RUBBER CLOSURES: Available from—
Fabricated Products Division, Townsend Co., West Newton, Pa.
Asphalt Corp. of America, Danville, Ill.

NOTE: For Flashing, see page 23.



description

THICKNESSES: 0.032", 0.040" and 0.050".

LENGTHS: 3' to 30'.

WIDTHS: 41 $\frac{1}{8}$ " over-all (39" coverage with 1-V sidelap).

V-CORRUGATION: 4 $\frac{7}{8}$ " pitch; 1 $\frac{3}{4}$ " depth; $\frac{3}{4}$ " each on top and bottom flat.

WEIGHTS: 0.032" thick—58.4 lbs per 100 sq ft

0.040" thick—72.2 lbs per 100 sq ft

0.050" thick—90.3 lbs per 100 sq ft

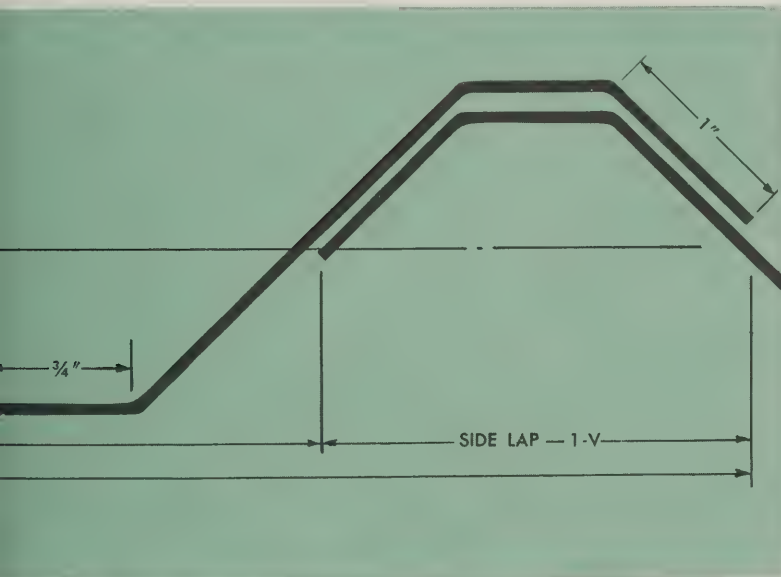
FINISHES: No. E-5 Pattern, stucco finish

Also available in plain mill finish, or low specular gloss finish on special inquiry.

COLORS: Natural aluminum

ALUMALURE FINISH on 0.032" and 0.040" thick sheet are standard; on 0.050" sheet it is subject to special inquiry. (See page 3)

NOTE: Above dimensions are nominal.



weight and coverage table

SHEET LENGTH, FEET	POUNDS PER SHEET			AREA PER SHEET SQ FT	APPROX. NO. SHEETS PER SQ (100 SQ FT)
	0.032"	0.040"	0.050"		
3	6.07	7.52	9.40	10.41	9.72
3½	7.08	8.77	10.96	12.14	8.34
4	8.09	10.02	12.53	13.88	7.29
4½	9.10	11.27	14.10	15.61	6.48
5	10.11	12.52	15.66	17.34	5.84
5½	11.12	13.78	17.23	19.08	5.31
6	12.13	15.03	18.79	20.81	4.86
6½	13.15	16.28	20.36	22.55	4.49
7	14.16	17.53	21.93	24.28	4.17
7½	15.17	18.79	23.50	26.02	3.89
8	16.18	20.04	25.06	27.75	3.65
8½	17.19	21.29	26.62	29.48	3.43
9	18.20	22.54	28.19	31.22	3.24
9½	19.21	23.79	29.75	32.95	3.07
10	20.22	25.05	31.33	34.69	2.92
10½	21.23	26.30	32.89	36.42	2.78
11	22.25	27.55	34.46	38.16	2.65
11½	23.26	28.80	36.02	39.89	2.54
12	24.27	30.06	37.59	41.63	2.43
12½	25.28	31.31	39.15	43.36	2.33
13	26.29	32.56	40.72	45.09	2.24
13½	27.30	33.81	42.29	46.83	2.16
14	28.31	35.06	43.85	48.56	2.08
14½	29.32	36.32	45.42	50.30	2.01
15	30.33	37.57	46.98	52.03	1.95
15½	31.35	38.82	48.55	53.77	1.88
16	32.36	40.07	50.12	55.50	1.82
16½	33.37	41.32	51.68	57.23	1.77
17	34.38	42.58	53.25	58.97	1.72
17½	35.39	43.83	54.81	60.70	1.67
18	36.40	45.08	56.38	62.44	1.62
18½	37.41	46.33	57.95	64.17	1.57
19	38.43	47.59	59.52	65.91	1.53
19½	39.43	48.83	61.08	67.64	1.49
20	40.45	50.09	62.65	69.38	1.45
20½	41.46	51.34	64.21	71.11	1.42
21	42.47	52.59	65.78	72.84	1.38
21½	43.48	53.85	67.35	74.58	1.35
22	44.49	55.10	68.91	76.31	1.32
22½	45.50	56.35	70.48	78.05	1.29
23	46.51	57.60	72.04	79.78	1.26
23½	47.53	58.86	73.61	81.52	1.24
24	48.53	60.11	75.17	83.25	1.21
24½	49.54	61.36	76.74	84.98	1.19
25	50.56	62.61	78.31	86.72	1.16
25½	51.57	63.86	79.87	88.45	1.14
26	52.58	65.12	81.44	90.19	1.12
26½	53.59	66.37	83.00	91.92	1.10
27	54.60	67.62	84.58	93.66	1.08
27½	55.61	68.87	86.14	95.39	1.06
28	56.63	70.13	87.71	97.13	1.04
28½	57.64	71.38	89.27	98.86	1.02
29	58.64	72.63	90.83	100.59	1.00
29½	59.66	73.88	92.40	102.33	.98
30	60.67	75.13	93.97	104.06	.97


loading table

DESIGN LOAD, LB PER SQ FT	MAXIMUM RECOMMENDED SPAN LENGTH, INCHES					
	ONE OR TWO SPANS			THREE OR MORE SPANS		
	0.032"	0.040"	0.050"	0.032"	0.040"	0.050"
	Thickness	Thickness	Thickness	Thickness	Thickness	Thickness
20	125	146	174	140	163	194
25	111	130	158	124	145	177
30	102	119	145	114	133	162
35	94	110	134	105	123	150
40	88	103	125	98	115	140
45	83	97	118	93	108	132
50	79	92	112	88	103	125
55	75	88	107	84	98	120
60	72	84	102	80	94	114

V-beam roofing installation

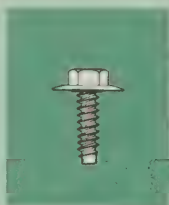
for slopes 2" in 12" and steeper


FASTENERS

A. Sheet fasteners (indicated by ) should be spaced every V-valley or low corrugation (4 7/8") at end of sheets over supporting members and every other V-valley (9 3/4") at intermediate supports. If purlin spacing is less than 7', fasteners at end of sheets over supporting members can be spaced every other V-valley (9 3/4") also. At endlaps these fasteners should be kept not more than 3" from end of overlapping sheet.

Self-tapping screw*

No. 14 x 1" recessed hex head type "B," stainless steel alloy 305, cadmium plated, with aluminum and neoprene washers or with integral metal washer and conical neoprene washer



B. Sidelap fasteners (indicated by ) should be spaced not more than 12" on center through the V-crown or high corrugation.

Aluminum sheet metal screw*
No. 12 x 3/4"; slotted panhead type "A"

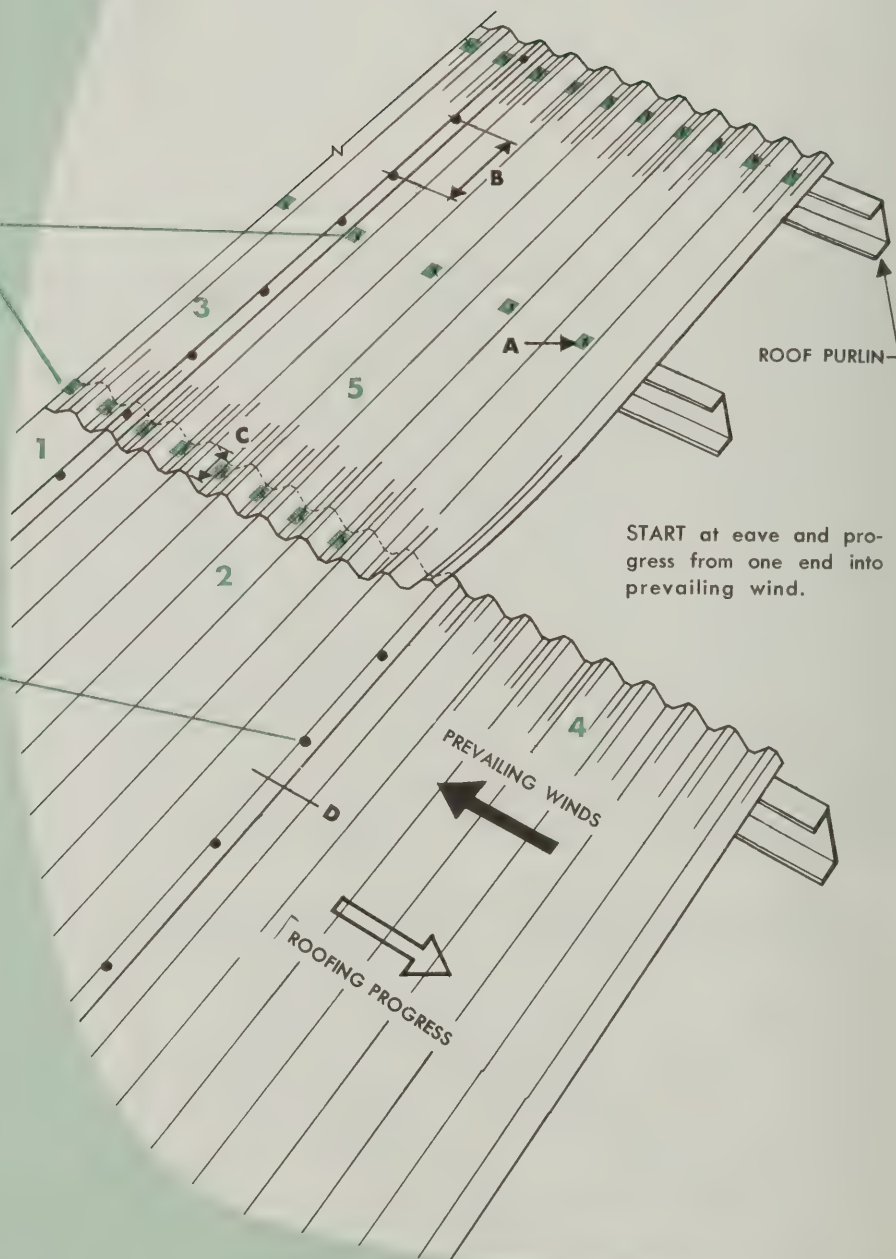


LAPS

C. Endlap:

- For roof slopes 2" in 12" up to 3" in 12"—use minimum endlap of 9".
- For roof slopes 3" in 12" and over—use minimum endlap of 6".

D. Sidelap should be 1-V and should be laid away from prevailing winds.



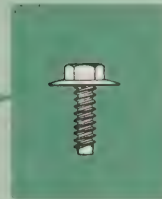
*See FASTENERS on page 24.

V-beam siding installation

Fasteners at end laps should be located not more than 3" from the end of the overlapping sheet. All steel that directly contacts bare aluminum should be painted with a quality paint system.

FASTENERS

A. Sheet fasteners (indicated by X) should be spaced every V-valley or low corrugation ($4\frac{7}{8}$ ") at end of sheets over supporting members and every other V-valley ($9\frac{3}{4}$ ") at intermediate supports. If girt spacing is less than 7', fasteners at end of sheets over supporting members can be spaced every other V-valley ($9\frac{3}{4}$ ") also. At endlaps these fasteners should be kept not more than 3" from end of overlapping sheet.



Self-tapping screw*
No. 14 x 1" recessed hex head type "B," stainless steel alloy 305, cadmium plated, with aluminum and neoprene washers or with integral metal washer and conical neoprene washer

B. Sidelap fasteners (indicated by •) should be spaced not more than 12" on center through the V-crown or high corrugation.



Aluminum sheet metal screw*
No. 12 x $\frac{3}{4}$ " ; slotted panhead type "A"

LAPS

C. Endlap should be a minimum of 4".

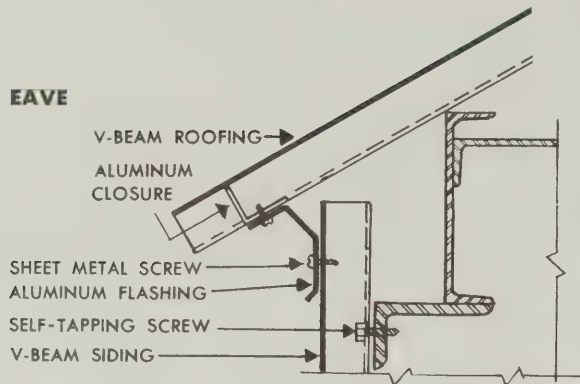
D. Sidelap should be 1-V and should be laid away from prevailing winds.



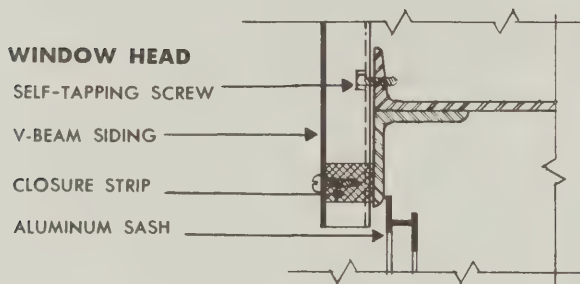
*See FASTENERS on page 24.

typical details

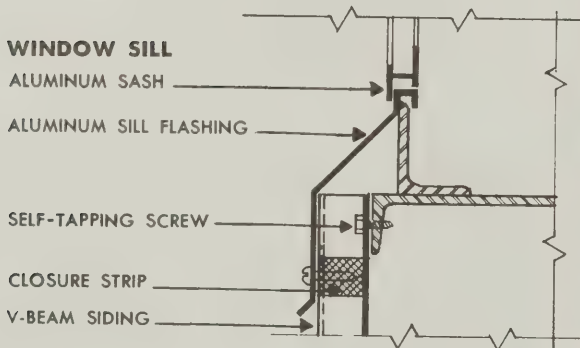
EAVE



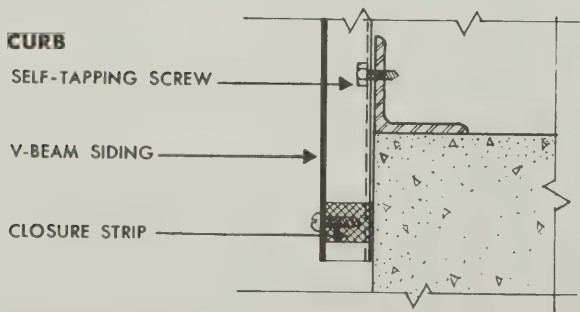
WINDOW HEAD



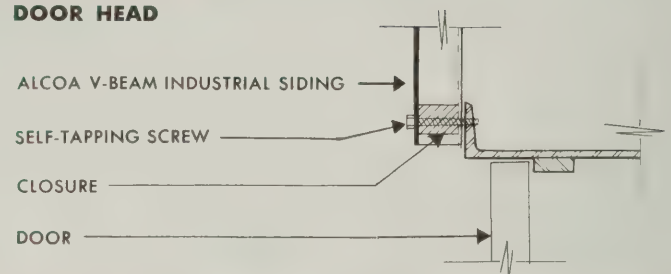
WINDOW SILL



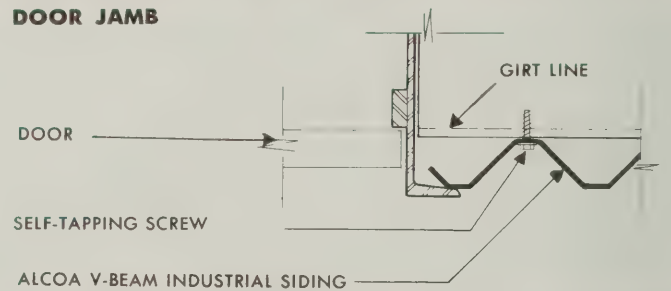
CURB



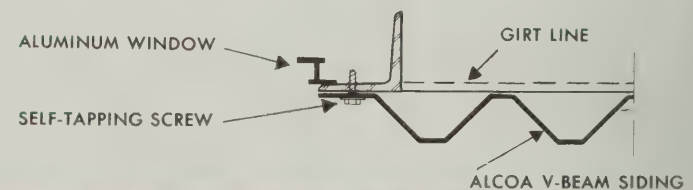
DOOR HEAD



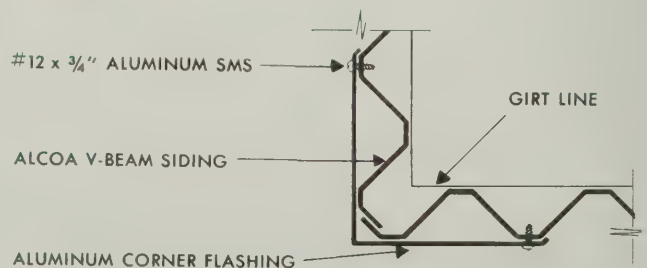
DOOR JAMB

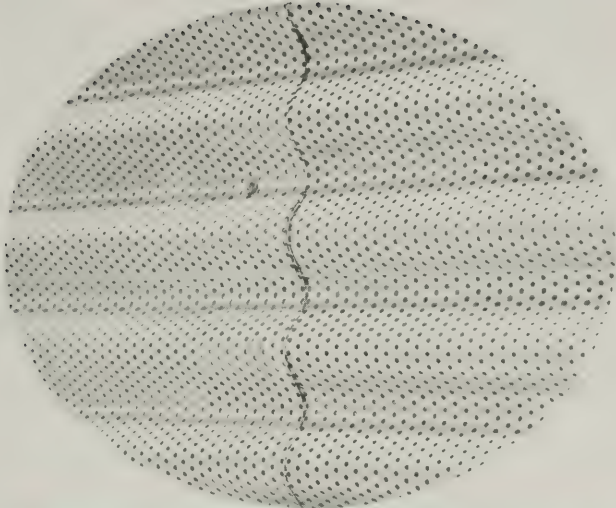


WINDOW JAMB



OUTSIDE CORNER





ALCOA ALUMINUM PERFORATED CORRUGATED SHEET

special features and uses

ECONOMIC SOUND CONTROL

Perforated corrugated sheet when used with sound-absorbing materials produces an exceptionally low-cost, noise-reducing wall. The holes in the aluminum admit and trap sound, the percentage of absorption depending upon the efficiency of the sound-absorbing material installed behind the paneling. For best results, acoustical materials made from mineral or vegetable fibers should be used with this sheet.

SANDWICH WALL APPLICATION

Perforated corrugated sheet makes an excellent interior surface for industrial sandwich wall construction (page 20), giving this 3-inch thick wall outstanding acoustical control as well as high thermal insulation value. The sheet is well suited, too, as inside facing for masonry walls when sound reverberation is a nuisance.

CEILING APPLICATION

This product may be installed as paneling on new ceilings or on old high ceilings in meeting halls, cafeterias, gymnasiums, supermarkets, laboratories, plants—wherever noise levels are high and sound reduction is desired.

REFLECTION

The stucco-like finish on the sheet reflects and diffuses light, boosting interior illumination.

ACCESSORIES

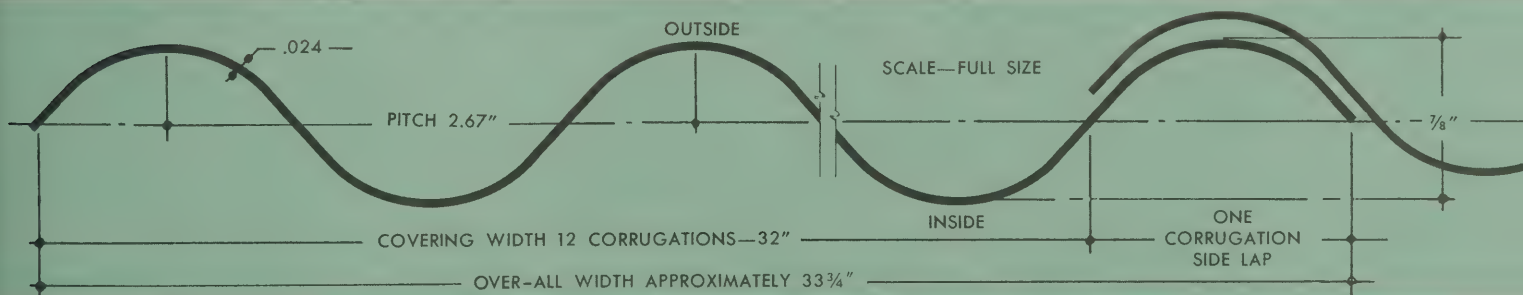
The standard accessories and fasteners used for corrugated roofing and siding (pages 4 to 7) can also be used with the perforated corrugated sheet.

description

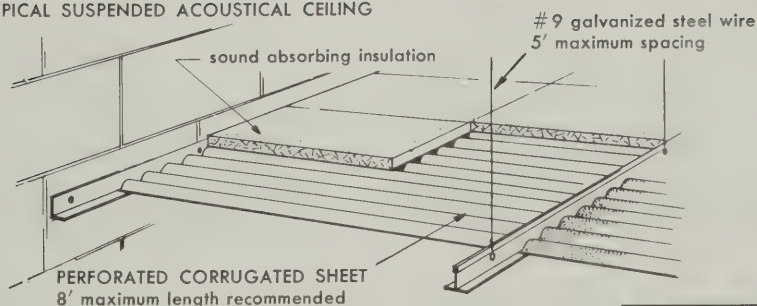
THICKNESS:	0.024"
LENGTHS:	3' to 18'
WIDTH:	33 $\frac{3}{4}$ " over-all (32" coverage with 1 corrugation sidelap)
CORRUGATION:	2.67" pitch; $\frac{7}{8}$ " depth
HOLES:	0.125" diameter on 2 $\frac{1}{4}$ " staggered centers; approximately 14% of surface open
FINISH:	Pattern No. E-5 (stucco; diffuses reflection)
COLOR:	Natural aluminum

acoustical wall installation

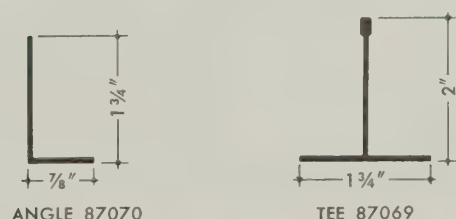
1. Paneling should be started 4' above floor beyond range of possible damage from material handling and other equipment. Wood furring strips 2" x 2" are nailed 48" apart to concrete block with masonry nails.
2. Glass fiber batts, 2" thick x 24" x 48" having a noise reduction coefficient in the range of 0.85, are fitted between the furring strips.
3. Plastic sheeting approximately 0.001" thick is applied over the glass fiber to protect it from damage by oil vapors. This thin sheet does not reduce the sound absorption characteristics of the installation, since diaphragmatic action by the plastic transmits sound waves into the glass fiber.
4. Alcoa Perforated Corrugated Sheet is installed over plastic and batts, and is nailed through every fourth low corrugation to the furring strips with 1 $\frac{3}{4}$ " aluminum nails. Sidelaps should be one corrugation and endlaps at least 1". Endlaps may be held together with No. 12 x $\frac{3}{4}$ " aluminum sheet metal screws.

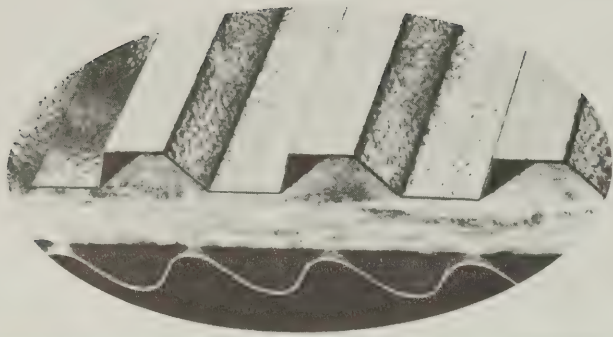


TYPICAL SUSPENDED ACOUSTICAL CEILING

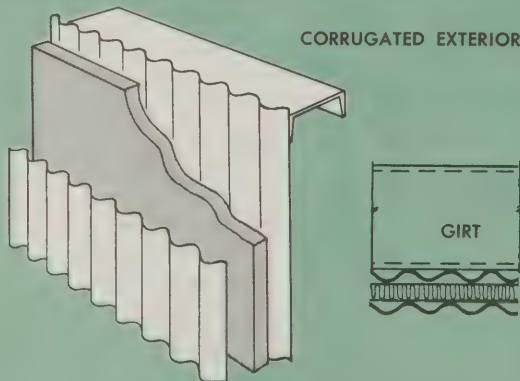
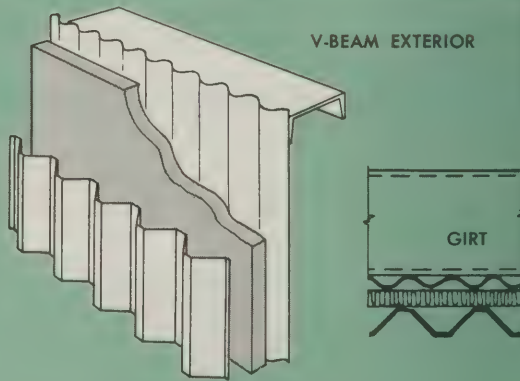

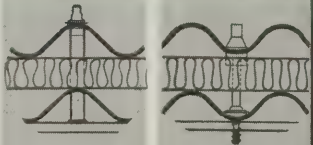
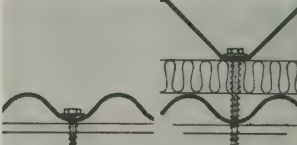


SUGGESTED CEILING ACCESSORIES





ALCOA ALUMINUM INDUSTRIAL SANDWICH WALL

	PRODUCT	CORRUGATED SIDING		V-BEAM SIDING																																																																													
EXTERIOR FACING	THICKNESS	0.032" and 0.024"		0.032", 0.040" and 0.050"																																																																													
	FINISH	Plain mill and Pattern No. E-5		Plain mill and Pattern No. E-5																																																																													
	COLOR	Natural Aluminum or ALUMALURE (See page 3)		Natural Aluminum or ALUMALURE (See page 3)																																																																													
RECOMMENDED INSULATION	TYPE	6 lb per cu ft density glass fiber		6 lb per cu ft density glass fiber																																																																													
	THICKNESS	1" or 1½" depending on U value required 1" gives U=0.147 1½" gives U=0.120		1" or 1½" depending on U value required 1" gives U=0.147 1½" gives U=0.120																																																																													
INTERIOR FACING	PRODUCT	CORRUGATED	PERFORATED CORRUGATED	CORRUGATED	PERFORATED CORRUGATED																																																																												
	THICKNESS	0.032" and 0.024"	0.024"	0.032" and 0.024"	0.024"																																																																												
	FINISH	Plain mill and Pattern No. E-5	Pattern No. E-5	Plain mill and Pattern No. E-5	Pattern No. E-5																																																																												
	COLOR	Natural Aluminum or ALUMALURE (See page 3)		Natural Aluminum or ALUMALURE (See page 3)																																																																													
 <p>CORRUGATED EXTERIOR</p>		 <p>V-BEAM EXTERIOR</p>		<table><tr><th>corrugated exterior</th><th>corrugated interior</th><th colspan="8">design load—pounds per sq ft</th></tr><tr><th>20</th><th>25</th><th>30</th><th>35</th><th>40</th><th>45</th><th>50</th><th></th></tr><tr><td>0.024"</td><td>0.024"</td><td>104</td><td>96</td><td>91</td><td>85</td><td>80</td><td>75</td><td>71</td><td></td></tr><tr><td>0.032"</td><td>0.024"</td><td>110</td><td>102</td><td>95</td><td>88</td><td>83</td><td>78</td><td>74</td><td></td></tr><tr><td>0.032"</td><td>0.032"</td><td>114</td><td>106</td><td>100</td><td>95</td><td>91</td><td>87</td><td>84</td><td></td></tr></table>		corrugated exterior	corrugated interior	design load—pounds per sq ft								20	25	30	35	40	45	50		0.024"	0.024"	104	96	91	85	80	75	71		0.032"	0.024"	110	102	95	88	83	78	74		0.032"	0.032"	114	106	100	95	91	87	84																													
						corrugated exterior	corrugated interior	design load—pounds per sq ft																																																																									
20	25	30	35	40	45	50																																																																											
0.024"	0.024"	104	96	91	85	80	75	71																																																																									
0.032"	0.024"	110	102	95	88	83	78	74																																																																									
0.032"	0.032"	114	106	100	95	91	87	84																																																																									
GIRT SPACING, INCHES		<table><tr><th>V-beam exterior</th><th>corrugated interior</th><th colspan="8">design load—pounds per sq ft</th></tr><tr><th>20</th><th>25</th><th>30</th><th>35</th><th>40</th><th>45</th><th>50</th><th></th></tr><tr><td>0.032"</td><td>0.024"</td><td>129</td><td>115</td><td>105</td><td>97</td><td>91</td><td>86</td><td>81</td><td></td></tr><tr><td>0.032"</td><td>0.032"</td><td>132</td><td>118</td><td>108</td><td>100</td><td>93</td><td>88</td><td>84</td><td></td></tr><tr><td>0.040"</td><td>0.024"</td><td>148</td><td>133</td><td>121</td><td>112</td><td>105</td><td>99</td><td>94</td><td></td></tr><tr><td>0.040"</td><td>0.032"</td><td>151</td><td>135</td><td>123</td><td>114</td><td>107</td><td>100</td><td>95</td><td></td></tr><tr><td>0.050"</td><td>0.024"</td><td>179</td><td>160</td><td>146</td><td>135</td><td>126</td><td>119</td><td>113</td><td></td></tr><tr><td>0.050"</td><td>0.032"</td><td>180</td><td>161</td><td>147</td><td>136</td><td>127</td><td>120</td><td>114</td><td></td></tr></table>		V-beam exterior	corrugated interior	design load—pounds per sq ft								20	25	30	35	40	45	50		0.032"	0.024"	129	115	105	97	91	86	81		0.032"	0.032"	132	118	108	100	93	88	84		0.040"	0.024"	148	133	121	112	105	99	94		0.040"	0.032"	151	135	123	114	107	100	95		0.050"	0.024"	179	160	146	135	126	119	113		0.050"	0.032"	180	161	147	136	127	120	114	
V-beam exterior	corrugated interior			design load—pounds per sq ft																																																																													
20	25	30	35	40	45	50																																																																											
0.032"	0.024"	129	115	105	97	91	86	81																																																																									
0.032"	0.032"	132	118	108	100	93	88	84																																																																									
0.040"	0.024"	148	133	121	112	105	99	94																																																																									
0.040"	0.032"	151	135	123	114	107	100	95																																																																									
0.050"	0.024"	179	160	146	135	126	119	113																																																																									
0.050"	0.032"	180	161	147	136	127	120	114																																																																									
RECOMMENDED FASTENING METHOD	 <p>Inside sheet: #14 x 1" self-tapping screw Outside sheet: #14 x 3" self-tapping screw</p>		 <p>Nelson Setlok Fastener CW tapping stud</p>																																																																														
	For more complete information on fasteners see page 24.		 <p>Inside sheet: #14 x 1" self-tapping screw Outside sheet: #14 x 3" self-tapping screw</p>																																																																														

selection chart

RIBBED SIDING

0.032" and 0.040"

Pattern No. E-5

Natural Aluminum or ALUMALURE (See page 3)

6 lb per cu ft density glass fiber

1" or 1½" depending on U value required
 1" gives $U=0.147$
 1½" gives $U=0.120$

CORRUGATED

0.032" and 0.024"

Plain mill and Pattern No. E-5

Natural Aluminum or ALUMALURE (See page 3)

PERFORATED CORRUGATED

0.024"

Pattern No. E-5

An exceptionally low-cost insulated industrial wall completely fabricated during erection in the field can be constructed by sandwiching a layer of insulating material such as glass fibers between two sheets of aluminum. The exterior facing may be Alcoa's Corrugated, Ribbed or V-beam sheets; the interior facing is usually 0.032" thick corrugated sheet, or where economy is essential, 0.024" thick corrugated sheet.

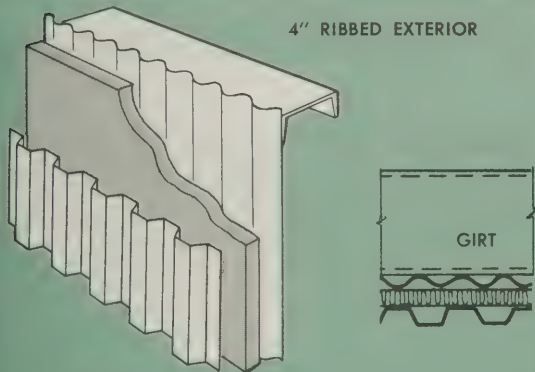
In installations where noise reduction is also desirable, Alcoa Perforated Corrugated Sheet (see page 19) may be substituted for the inside facing of the sandwich wall. This special acoustical product will permit the sound absorption characteristics of the glass fiber insulation to function without any loss in thermal insulation value.

sandwich wall installation

using self-tapping screws

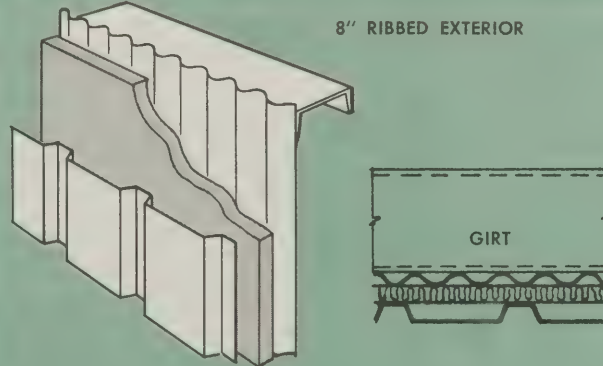
1. The steel framing should be coated with aluminum paint to prevent it from rusting and damaging the aluminum sheet.
2. Several courses of the inside corrugated sheet (or perforated corrugated sheet) are installed with enough No. 14 x 1" self-tapping screws to hold the sheets to the girts. For drilling screw holes a No. 8 drill bit should be used for No. 14 to No. 10 gage steel; a No. 4 bit for No. 10 gage to ⅜" thick steel; a No. 1 bit for ⅜" thick or heavier steel.
3. On the outside high corrugations of the inner sheet, a sufficient amount of rubber adhesive is spread to temporarily bond the insulation batts to the inner sheet. The insulation is then pressed into place.

4" RIBBED EXTERIOR

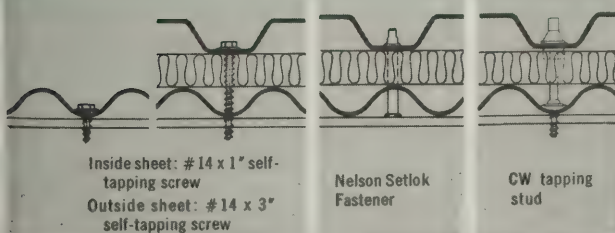


4" ribbed exterior	corrugated interior	design load—pounds per sq ft							
		20	25	30	35	40	45	50	
0.032"	0.024"	120	107	98	90	85	80	76	
0.032"	0.032"	128	114	104	96	90	85	81	
0.040"	0.024"	135	124	113	105	98	92	87	
0.040"	0.032"	138	128	118	109	102	96	91	

8" RIBBED EXTERIOR



8" ribbed exterior	corrugated interior	design load—pounds per sq ft							
		20	25	30	35	40	45	50	
0.032"	0.024"	92	82	75	69	65	61	58	
0.032"	0.032"	105	94	86	79	74	70	66	
0.040"	0.024"	99	88	81	75	70	66	62	
0.040"	0.032"	109	97	89	82	77	73	69	

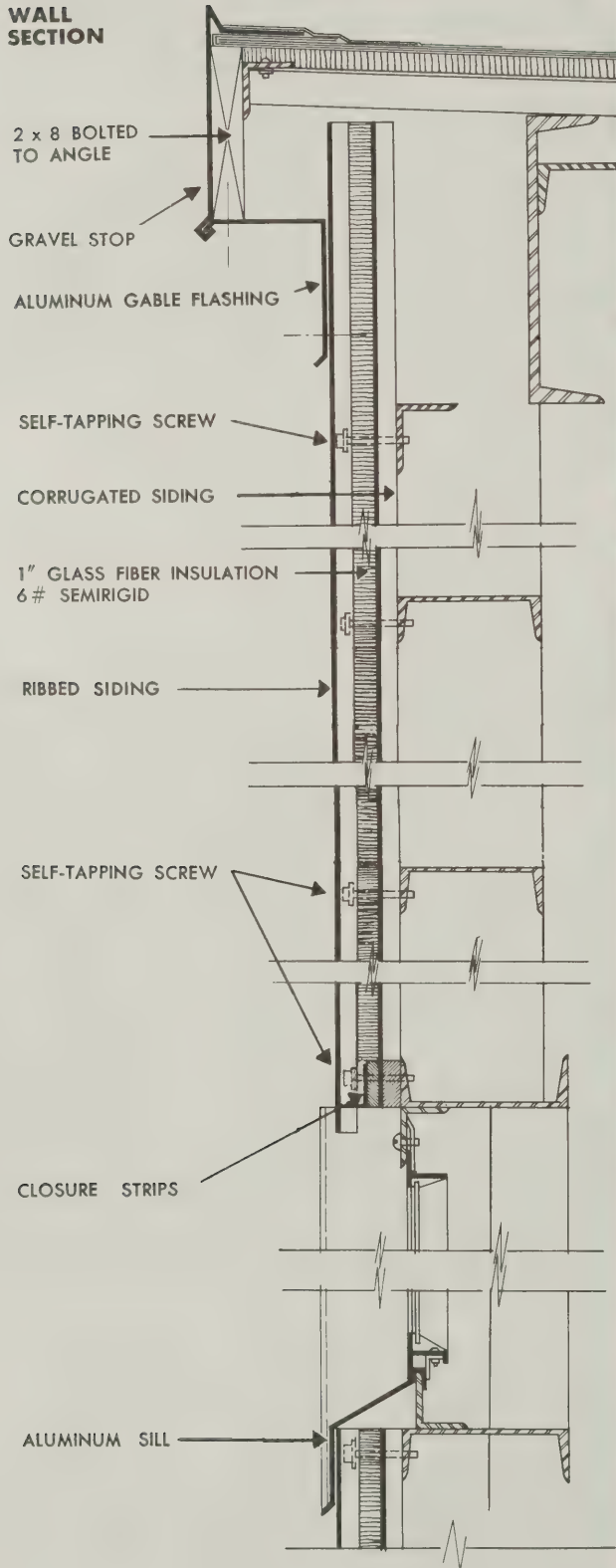


4. The outer facing (corrugated, ribbed or V-beam) is positioned and fastened by drilling through exterior sheet, insulation, interior sheet and girt flanges, then inserting No. 14 x 3" self-tapping screws which draw the entire assembly tight. These screws should pass through the low corrugation of the exterior sheet.
5. The exterior sidelaps and endlaps are secured with No. 12 x ¼" aluminum sheet metal screws through holes drilled with a No. 26 drill bit.
6. This procedure is repeated area by area as the installation crew moves along the building. The entire wall can thus be installed by as few as three workmen if necessary.

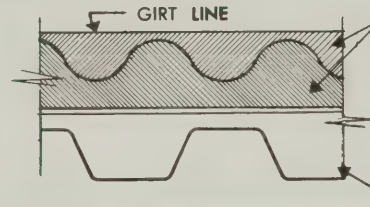
NOTE: For installation procedures on other fasteners, refer to fastener manufacturers recommendations.

typical details

WALL SECTION



CLOSURE STRIPS

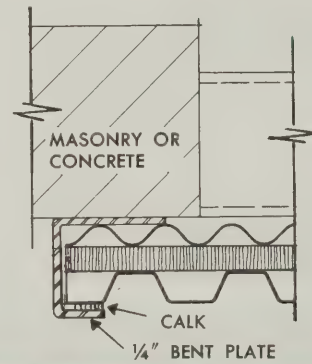


COMPOSITION CLOSURES

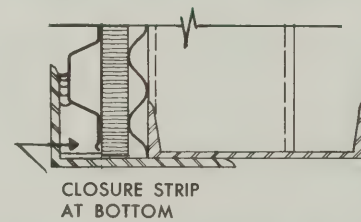
NOTE: All closures between insulation and exterior siding shall be aluminum to provide wall ventilation.

ALUMINUM CLOSURE

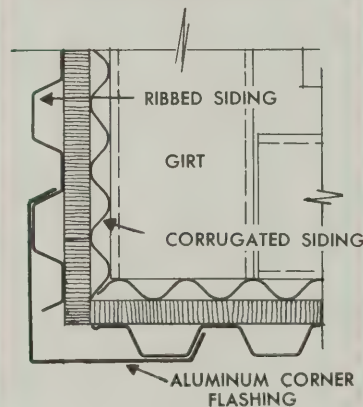
MASONRY TO SIDING JOINT



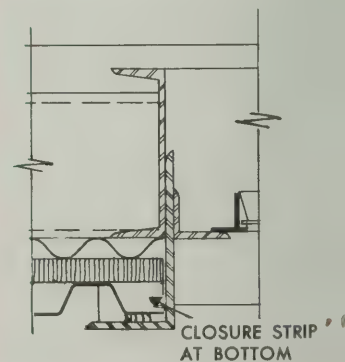
DOOR JAMB

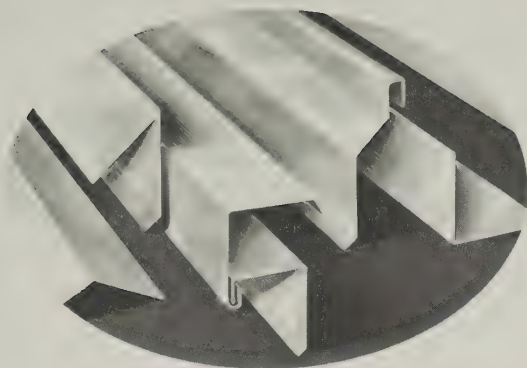


CORNER FLASHING



WINDOW JAMB





ALCOA ALUMINUM FLAT INDUSTRIAL FLASHING SHEET FOR FIELD-FORMED FLASHING

description

THICKNESSES	SIZES	RECOMMENDED USE	FINISHES*
0.032"	36" x 96" 48" x 120"†	with 0.024" or 0.032" roofing or siding	Plain mill, Pattern No. E-5, or Alumalure Colors† (See page 3)
0.040"	36" x 96"† 48" x 120"	with 0.040" or 0.050" roofing or siding	
0.050"	36" x 96" 48" x 120"	with 0.050" roofing or siding	

*Low specular gloss finish available subject to inquiry.

†Alumalure colors available in these two sizes only.

forming

Flashing may be economically produced from Flat Industrial Flashing Sheet at the job site on any standard hand brake. The drawings below give Alcoa's recommended minimum dimensions for the cross section of commonly used flashing shapes. Lengths of the flashing pieces vary, of course, depending on the size of the forming brake available in the field. Because of handling ease, flashing 8' long is generally considered most satisfactory.

installation

LAPS

- When two or more pieces of flashing are installed end to end, the end of one piece should be lapped 4" over the end of the adjoining piece. Other end connections such as slip joints may also be used if desired.

FASTENING

- For fastening flashing to roofing and siding sheet, a No. 12 x 3/4" aluminum panhead sheet metal screw is suitable (page 24). Such screws should pass through flashing at a corrugation that touches the sheet:

Corrugated sheet—at every fourth corrugation or 10 3/4" O.C.

V-Beam sheet—at every other V-corrugation or 9 3/4" O.C.

Ribbed sheet—at every third rib or 12" O.C.

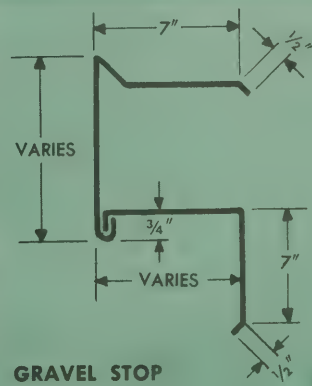
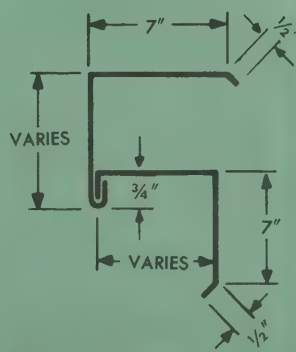
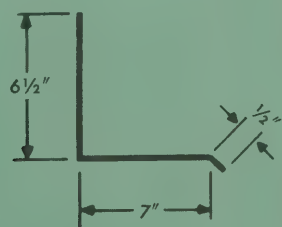
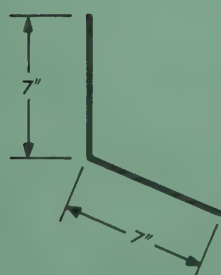
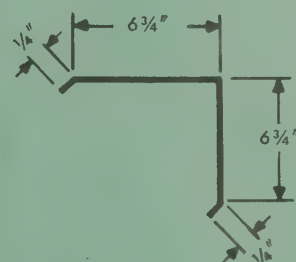
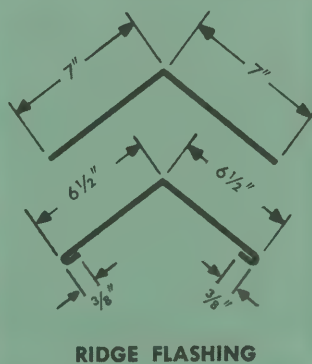
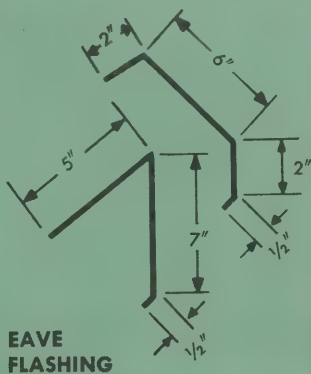
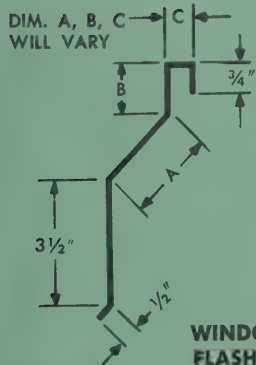
Holes for these screws should be made in both flashing and roofing or siding with a No. 26 drill bit (0.1470" diameter).

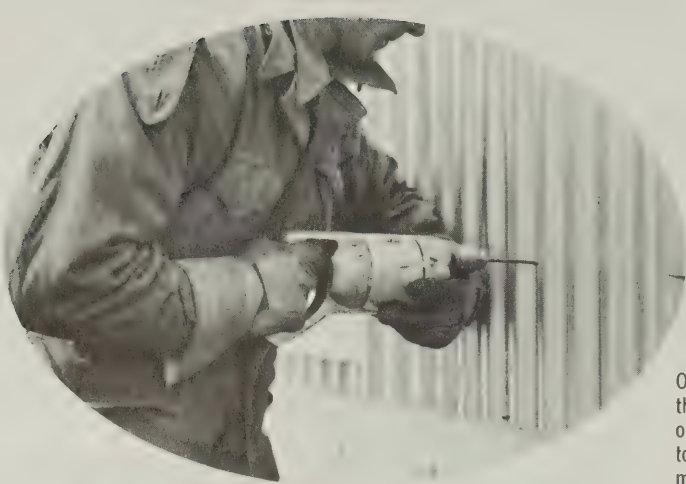
- No fastener should be installed through the endlap because of sheet expansion and contraction.

miscellaneous sheet metal

Alcoa Flat Industrial Flashing Sheet is also a most practical product for such miscellaneous sheet metal items as louvers, roof vents, downspouts and gutters. The easy workability of the sheet can greatly reduce normal fabricating time and costs with no loss in strength or quality of the product.

Dimensions shown below are recommended minimums and will vary in accordance with type of sheet used for roofing and siding.

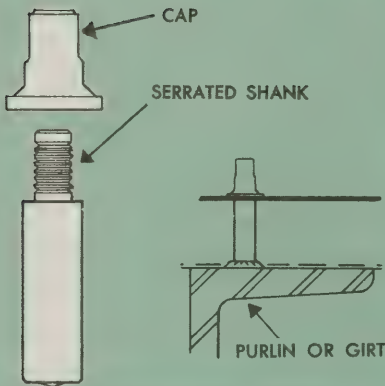
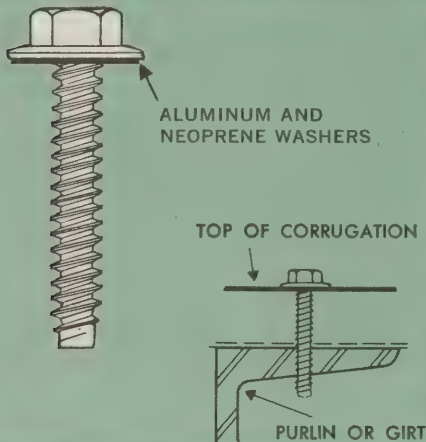




FASTENERS

Of the many kinds of suitable fasteners for Alcoa roofing and siding sheets, the most popular are those which can be installed from the weatherside or exterior of the building without the need for additional workmen inside to assist. These weatherside fasteners also reduce installation time and minimize the amount of scaffolding required.

sheet fasteners



lap and flashing fastener



SELF-TAPPING SCREW

A screw which taps its own threads into structural steel supporting members after preliminary holes are drilled.

SIZES: No. 14 x 1" long and No. 14 x 1 3/4" long (for single sheeting); No. 14 x 3" long (for sandwich walls).

DESCRIPTION: Self-tapping screw with recessed hex head, type "B" made from stainless steel alloy type 305 with cadmium plate finish for lubrication; assembled with composite cupped aluminum and neoprene washer, the aluminum part having a minimum thickness 0.050" and minimum O.D. 5/8".

INSTALLATION: Sheet should be positioned against supporting steel and holes drilled through both sheet and purlin or girt flange as follows.

- For No. 14 to No. 10 gage steel—use No. 8 drill bit.
- For No. 10 gage to 3/16" steel—use No. 4 drill bit.
- For 3/16" or heavier steel—use No. 1 drill bit.

Screws are installed with power nut-runner, tapping threads as they enter and sealing hole in sheet with self-contained neoprene washer.

- For corrugated roofing—install screw in high corrugation only.
- For corrugated siding—install screw in high or low corrugation.
- For ribbed siding, V-beam roofing or siding—install screw in low corrugation only.

STOCKED BY:

- Fabricated Products Division, Townsend Co., West Newton, Pa.
- Construction Fasteners, Inc., Reading, Pa.

NELSON SETLOK FASTENER

This variation of the weldable stud is welded to the steel support, and the sheet impaled and held tight by a weathersealing cap.

SIZES: (Consult manufacturer.)

DESCRIPTION: A one-piece stud made from stainless steel alloy type 304, having a base 5/16" dia. and a serrated shank 3/16" dia. and using an aluminum cap.

INSTALLATION: Studs are positioned with the aid of a template, then welded to supporting steel with an arc gun. Sheets are next laid over studs and impaled with a rubber hammer. The aluminum cap is driven onto the serrated shank with a hammer and setting tool, locking itself on the serrations and sealing the hole in the sheet. Setlok fasteners are installed through the high corrugation on single sheeting and through the low corrugation on sandwich walls. They are suitable for corrugated and ribbed sheet.

STOCKED BY: Nelson Stud Welding, Division of Gregory Industries, Inc., Lorain, Ohio.

SHEET METAL SCREW

A sheet metal screw for holding sheet laps or flashing tight; recommended for use with weatherside fasteners.

DESCRIPTION: No. 12 x 3/4" aluminum sheet metal screw, slotted panhead type "A."

INSTALLATION: Holes should be drilled in sheet with No. 26 drill bit and screws are installed from outside the building.

STOCKED BY: Alcoa

ROOFING AND SIDING CHECK LIST

care during construction

1. Store aluminum sheets on end in a dry place and avoid condensation.
2. Do not allow sheets to come in contact with materials that might cause staining of aluminum, such as mud, uncured concrete, cement, lime or other strong chemicals in the presence of moisture.
3. Avoid the use of dissimilar metals such as copper, lead, etc., in direct contact with aluminum. Where such contact cannot otherwise be avoided, the contacting surfaces should be protected with a suitable paint, or the surfaces separated and the joint sealed by filling with an aluminum mastic compound. Dissimilar metals should be painted if used in locations where drainage from them passes over aluminum.
4. All aluminum surfaces to be in contact with lime mortar, concrete or other masonry materials should be back-painted with alkaline-resistant coatings, such as heavy-bodied bituminous paint, or a coat of zinc-chromate primer followed by two coats of aluminum metal-and-masonry paint.
5. All structural steel that directly contacts bare aluminum should be painted with a quality paint system.
6. All green wood in contact with aluminum or wood which may otherwise repeatedly become wet should be back-painted with two coats of aluminum paint.
7. When wood has been treated with a preservative and is to be used in direct contact with aluminum, the preservative material should be of the type that when applied to the wood will be compatible with aluminum. The following types may be used: pentachlorophenol solutions, Wolman salts, creosote and zinc naphthenate.

installation

8. Good roofing or siding design rarely requires the use of welded or brazed joints.
9. Sheets having $\frac{1}{8}$ " depth corrugations should not be used on roofs having a slope of less than 3" in 12". Sheets having the $1\frac{3}{4}$ " depth V-corrugations should not be used on roofs having a slope of less than 2" in 12".
10. If an attempt is made to install uncurved Alcoa Corrugated Industrial Roofing Sheets 2.67" pitch x $\frac{1}{8}$ " depth, on curved surfaces, do not install them where the radius of curvature is less than 25 ft.
11. Alcoa Corrugated Industrial Roofing and Siding can be used with corrugated plastic without the use of any flashing material, provided the plastic is corrugated to the same contour and dimensions as the corrugated aluminum sheet.

fastening

12. Maximum spacing for fasteners along supporting members:
 - Corrugated Industrial Roofing or Siding—install in every fourth corrugation or $10\frac{2}{3}$ ". Where high stress conditions are anticipated, the spacing should be every third corrugation or 8".
 - Ribbed Industrial Siding—install in every other rib or 8".
 - V-Beam Roofing or Siding—install in every V-corrugation or $4\frac{7}{8}$ " for ends of sheet and every other V-corrugation or $9\frac{3}{4}$ " on intermediate supports.
13. Installation of fasteners:
 - On roofing, fasteners should be installed in the high corrugation only on corrugated sheet and in the valley only on V-Beam sheet.
 - On siding, fasteners may be installed in either the high or low corrugations on corrugated sheet and in the valleys only on V-Beam and ribbed siding.
14. Fasteners at endlaps should be located not more than 2" from the end of the overlapping sheet.

flashing

15. Where flashings are to be formed from flat sheets, bends of approximately 90° should be made with a minimum bend radius of $\frac{1}{16}$ ".
16. Weather sealing of flashings (where desired) can be accomplished by using either Alcoa Aluminum Closures or commercially available preformed rubber closure strips.
17. Flashings can be fastened by using No. 12 x $\frac{3}{4}$ " long sheet metal screws, installed into holes drilled with a No. 26 drill (0.1470" diameter).

laps

18. Endlaps should be as follows:
 - Corrugated Industrial Roofing—a minimum of 6".
 - Corrugated Industrial Siding—a minimum of 4".
 - Ribbed Industrial Siding—a minimum of 4".
 - V-Beam Roofing—a minimum of 6" if slope of roof is 3" in 12" or steeper; minimum of 9" if slope of roof is 2" in 12" up to 3" in 12".
 - V-Beam Siding—a minimum of 4".
19. Sidelaps should be as follows:
 - Corrugated Industrial Roofing—a minimum of $1\frac{1}{2}$ corrugations.
 - Corrugated Industrial Siding—a minimum of 1 corrugation.
 - Ribbed Industrial Siding—a minimum of one rib.
 - V-Beam Roofing or Siding—a minimum of one V.

SUGGESTED SPECIFICATION

for

CORRUGATED INDUSTRIAL SHEET CURVED CORRUGATED SHEET RIBBED INDUSTRIAL SIDING V-BEAM ROOFING AND SIDING PERFORATED CORRUGATED SHEET INDUSTRIAL SANDWICH WALL

The following specification covers aluminum work only and does not include information on general conditions. Descriptions of all available Alcoa Industrial Building Products have been listed. If copying the specification, the specifier should select only those items which apply to his job. Parenthesized data within each item represent additional multiple choices for selection by specifier. Italicized words are for specifier's information only.

1. general conditions

Insert conditions desired.

2. work included

- (a) Furnish (plant) (labor) (materials) (and) (equipment) for complete installation of all aluminum (roofing) (and) (siding) work indicated on drawings or specified herein.
- (b) Alcoa Aluminum (roofing) (and) (siding) (sandwich wall).
- (c) Alcoa Aluminum (preformed) (and) (field-formed) flashing.
- (d) Closures.
- (e) Fasteners required for securing aluminum (roofing) (siding) (flashings) (and) (miscellaneous sheet metal work).
- (f) Adhesives. *For sandwich wall installation by self-tapping screws.*
- (g) Calking.
- (h) Priming and back-painting of aluminum (roofing) (siding) (and) (flashings).
- (i) Shop drawings.
- (j) Storage of materials.

3. materials—ROOFING AND SIDING

- (a) Alcoa Aluminum Corrugated Industrial Roofing, 2.67" pitch x $\frac{7}{8}$ " depth x (35") (48 $\frac{1}{2}$ ") width x (0.032") (0.024") thick shall be (plain mill finish) (No. E-5 Stucco Pattern), (Low Specular Gloss finish) in lengths shown on drawings.
- (b) Alcoa Aluminum Corrugated Industrial Siding, 2.67" pitch x $\frac{7}{8}$ " depth x (33 $\frac{3}{4}$ ") (47") width x (0.032") (0.024") thick shall be (plain mill finish) (No. E-5 Stucco Pattern), (Low Specular Gloss finish) in lengths shown on drawings.
- (c) Alcoa Aluminum Curved Corrugated Sheet, 2.67" pitch x $\frac{7}{8}$ " depth x (33 $\frac{3}{4}$ ") (35") width x (0.032") (0.024") thick shall be (plain mill finish) (No. E-5 Stucco Pattern), in lengths and curvature radii shown on drawings.
- (d) Alcoa Aluminum Ribbed Industrial Siding (4" pitch) (8" pitch) x 1" depth x 41 $\frac{5}{8}$ " width x (0.032") (0.040") thick shall be (No. E-5 Stucco Pattern), (ALUMALURE finish, color . . . *insert color desired*) in lengths shown on drawings.
- (e) Alcoa Aluminum V-Beam (Roofing) (and) (Siding), 4 $\frac{7}{8}$ " pitch x 1 $\frac{3}{4}$ " depth x 41 $\frac{5}{8}$ " width x (0.032") (0.040") (0.050") thick shall be (No. E-5 Stucco Pattern), (ALUMALURE finish, color . . . *insert color desired*) in lengths shown on drawings.
- (f) Alcoa Aluminum Flat Industrial Flashing Sheet for field-formed flashings, (36" x 96") (48" x 120") x (0.032") (0.040") thick shall be (plain mill finish) (No. E-5 Stucco Pattern), (ALUMALURE finish, color . . . *insert color desired*).
- (g) Preformed aluminum sheet flashings for corrugated sheet

shall be (side wall flashings 0.032" thick x 96" long) (end wall flashing 0.032" thick x 42" long) (plain ridge roll 0.032" thick x 96" long).

- (h) Closures shall be (aluminum) (rubber) (asphalt composition).
- (i) Fasteners for securing aluminum (roofing) (and) (siding) to structural supports shall be:
 1. Self-tapping screws, (No. 14 x 1 $\frac{3}{4}$ ") (No. 14 x 1") long with a recessed hex head type "B" made from stainless steel alloy type 305 with a cadmium plate finish. The screw shall have under the hex head (an aluminum and a neoprene washer with the aluminum having a minimum thickness 0.050" and a minimum OD $\frac{5}{8}$ ") (an integral metal washer with minimum $\frac{5}{8}$ " OD assembled with conical neoprene washer—*this type fastener should not be used in the low corrugation of corrugated sheet*).
 2. Nelson Setlok fastener made from stainless steel alloy type 304, having a base $\frac{5}{16}$ " dia., a serrated shank $\frac{3}{16}$ " dia. and using an aluminum cap.
- (j) Fasteners for securing (sidelaps) (endlaps—*corrugated sheet only*) (and) (flashing) to (roofing) (and) (siding) shall be No. 12 x $\frac{3}{4}$ " long slotted panhead type "A" Alcoa Aluminum sheet metal screws.
- (k) Calking compound. *Insert calking selected.*
- (l) Paint or compound for back-painting. *Insert material selected.*

materials—INDUSTRIAL SANDWICH WALL

- (a) The sandwich wall shall consist of an outside aluminum panel, insulation and an inside aluminum panel.
 1. Outside aluminum panel shall be:
 - a. Alcoa Aluminum Corrugated Industrial Siding, 2.67" pitch x $\frac{7}{8}$ " depth x (33 $\frac{3}{4}$ ") (47") width x (0.032") (0.024") thick shall be (plain mill finish) (No. E-5 Stucco Pattern) (Low Specular Gloss finish) in lengths shown on drawings.
 - b. Alcoa Aluminum Ribbed Industrial Siding, (4" pitch) (8" pitch) x 1" depth x 41 $\frac{5}{8}$ " width x (0.032") (0.040") thick shall be (No. E-5 Stucco Pattern) (ALUMALURE finish, color . . . *insert color desired*) in lengths shown on drawings.
 - c. Alcoa Aluminum V-Beam Siding, 4 $\frac{7}{8}$ " pitch x 1 $\frac{3}{4}$ " depth x 41 $\frac{5}{8}$ " width x (0.032") (0.040") (0.050") thick shall be (No. E-5 Stucco Pattern) (ALUMALURE finish, color . . . *insert color desired*) in lengths shown on drawings.
 2. Insulation—*Insert insulation selected.*
 3. Inside aluminum panel shall be:
 - a. Alcoa Aluminum Corrugated Industrial Siding, 2.67" pitch x $\frac{7}{8}$ " depth x (33 $\frac{3}{4}$ ") (47") width x (0.032") (0.024") thick shall be (plain mill finish) (No. E-5 Stucco Pattern) (Low Specular Gloss finish) in lengths shown on drawings.

- b. Alcoa Aluminum Perforated Corrugated Sheet, 2.67" pitch x $\frac{1}{8}$ " depth x $33\frac{3}{4}$ " width x 0.024" thick, shall be No. E-5 Stucco Pattern in lengths shown on drawings.
- (b) Field-Formed flashing shall be of Alcoa Aluminum Flat Industrial Flashing Sheet, (36" x 96") (48" x 120") x (0.032") (0.040") thick with (plain mill finish) (No. E-5 Stucco Pattern) (ALUMALURE finish, color . . . *insert color desired.*)
- (c) Closures shall be (aluminum) (rubber) (asphalt composition).
- (d) Fasteners for securing aluminum panels to structural supports shall be:
 1. Self-tapping screws, (No. 14 x $1\frac{3}{4}$ ") (No. 14 x 1") long with a recessed hex head type "B" made from stainless steel alloy type 305 with a cadmium plate finish. The screw shall have under the hex head (an aluminum and a neoprene washer with the aluminum having a minimum thickness 0.050" and a minimum OD $\frac{5}{8}$ ") (an integral metal washer with minimum $\frac{5}{8}$ " OD assembled with conical neoprene washer—*this type fastener should not be used in the low corrugation of corrugated sheet.*)
 2. Hex-shouldered CW Tapping Stud by Fabricated Products Division, Townsend Company, made from stainless steel alloy type 305 with cadmium plate finish. The stud shall be assembled with a conical neoprene washer on its machine-threaded end and a composite aluminum and neoprene washer on its tapping end and shall include an aluminum drive cap.
- (e) Fasteners for securing sidelaps and endlaps of (siding) (and) (flashing) to siding shall be No. 12 x $\frac{3}{4}$ " long slotted pan-head type "A" Alcoa Aluminum sheet metal screws.
- (f) Adhesives—*Insert adhesive selected.*
- (g) Calking compound—*Insert calking selected.*
- (h) Paint or compound for back-painting—*Insert material.*

4. workmanship, installation

- (a) Before starting work, verify governing dimensions at project site; examine adjoining work on which this work is in any way dependent for its required installation.
- (b) Aluminum sheets shall be stored on end in a dry place to avoid condensation. Do not allow sheets to come in contact with materials that might cause staining of aluminum, such as mud, uncured concrete, cement, lime or other strong chemicals in the presence of moisture.
- (c) Minimum endlaps shall be as follows:
 1. Corrugated Industrial Roofing—6".
 2. Corrugated Industrial Siding—4".
 3. Ribbed Industrial Siding—4".
 4. V-Beam Roofing—(6" if roof slope is 3" in 12" or steeper) (9" if roof slope is 2" in 12" up to 3" in 12").
 5. V-Beam Siding—4".

Note: Sheets having $\frac{1}{8}$ " depth corrugation should not be used on roofs having a slope of less than 3" in 12". Sheets having the $1\frac{3}{4}$ " depth V-corrugations should not be used on roofs having a slope of less than 2" in 12".
- (d) Minimum sidelaps shall be as follows:
 1. Corrugated Industrial Roofing— $1\frac{1}{2}$ corrugations.
 2. Corrugated Industrial Siding—1 corrugation.
 3. Ribbed Industrial Siding—1 rib.
 4. V-Beam (Roofing) (and) (Siding)—1 V.
- (e) Maximum spacing of primary sheet fasteners shall be as follows:
 1. Corrugated Industrial (Roofing) (and) (Siding)—($10\frac{3}{8}$ " or every fourth corrugation for normal conditions) (8" or every third corrugation for high-stress conditions).
 2. Ribbed Industrial Siding—8" or every other rib.
 3. V-Beam (Roofing) (and) (Siding)— $4\frac{7}{8}$ " or every V-valley at ends of sheet and $9\frac{3}{4}$ " or every other V-valley at intermediate supports.

- (f) Primary sheet fasteners located near endlaps shall be placed not more than 2" from end of overlapping sheets. When used in . . .
 1. Corrugated Industrial Roofing—primary fasteners shall pierce only the high corrugation.
 2. (Corrugated Industrial Siding) (and) (Perforated Corrugated Sheet)—primary fasteners may pierce either the high or low corrugation.
 3. Ribbed Industrial Siding—primary fasteners shall pierce the rib valley only.
 4. V-Beam (Roofing) (and) (Siding)—primary fasteners shall pierce the V-valley only.
- (g) On sidelaps, maximum spacing for sheet-metal screw fasteners shall be 12" for all types of roofing or siding. Sheet-metal-screw fasteners through endlaps of Corrugated Industrial (Roofing) (and) (Siding) shall be spaced midway between primary sheet fasteners, which is ($10\frac{3}{8}$ " on center for normal conditions) (8" on center for high-stress conditions). *Fasteners are not required on endlaps of V-Beam or Ribbed sheet.*
- (h) Where sandwich walls are being installed with self-tapping screws, the interior sheet shall be fastened to structural supports with sufficient fasteners to hold it in place until wall is completely assembled.
- (i) No. 12 sheet metal screws for endlaps and sidelaps shall be driven into holes drilled with a No. 26 drill bit.
- (j) Flashings, where field formed from Flat Industrial Flashing Sheet, shall have minimum bend radii of $\frac{1}{16}$ ".

5. dissimilar materials

- (a) ALUMINUM TO DISSIMILAR METALS

Where aluminum surfaces come in contact with metals other than stainless steel, zinc, white bronze of small area or other metals compatible with aluminum, keep aluminum surfaces from direct contact with such parts by (1) painting the dissimilar metal with a prime coat of zinc-chromate primer or other suitable primer, followed by one or two coats of aluminum metal-and-masonry paint or other suitable protective coating, excluding those containing lead pigmentation, (2) painting the dissimilar metal with a coating of heavy-bodied bituminous paint, (3) a good quality calking placed between aluminum and dissimilar metal, or (4) a nonabsorptive tape or gasket. Steel anchors and connecting members may be hot-dip galvanized or zinc plated after fabrication.
- (b) DRAINAGE FROM DISSIMILAR METALS

Paint dissimilar metals if used in locations where drainage from them passes over aluminum.
- (c) ALUMINUM TO MASONRY

Paint aluminum surfaces in contact with lime mortar, concrete, plaster or other masonry materials with alkaline-resistant coatings, such as heavy-bodied bituminous paint or water-white methacrylate lacquer.
- (d) 1. ALUMINUM TO WOOD

Aluminum in contact with wood or other absorptive materials which may become repeatedly wet shall be painted with two coats of aluminum metal-and-masonry paint or a coat of heavy-bodied bituminous paint. Alternate: paint the wood or other absorptive material with two coats of aluminum house paint and seal joints with a good quality calking compound.

2. ALUMINUM TO TREATED WOOD

Where aluminum is in contact with treated wood, wood shall be treated with pentachlorophenol, 5% minimum concentration, or Wolman salts or creosote or zinc naphthenate. Follow the protective measures outlined in paragraph (d) 1.



ALCOA

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Flint, 48502.....510 Mott Foundation Building
Grand Rapids, 49502.....812 Michigan National Bank Building
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Alcoa International Canada, Ltd.....2 Carlton Street, Suite 1704

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Minneapolis, 55424.....4010 West 65th Street

MISSOURI
Kansas City, 64112.....4601 Madison Avenue
St. Louis, 63105.....8301 Maryland Avenue

NEBRASKA
Omaha, 68102.....746 Omaha National Bank Building

NEW JERSEY
Newark, 07102.....744 Broad Street

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Albany, 12206.....40 Colvin Avenue
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Garden City (L. I.), 11530.....1001 Franklin Avenue
New York, 10017.....200 Park Avenue
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Syracuse, 13201.....731 James Street

NORTH CAROLINA
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OHIO
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Cincinnati, 45206.....Alcoa Building, 2331 Victory Parkway
Cleveland, 44113.....1450 Terminal Tower
Columbus, 43215.....230 Bryson Building
Dayton, 45405.....207 Northtown Arcade
Toledo, 43624.....350 W. Woodruff Avenue
Youngstown, 44503.....537 Ohio Edison Building

OKLAHOMA
Oklahoma City, 73103.....111 N. W. 23rd Street

OREGON
Portland, 97232.....111 Lloyd Plaza

PENNSYLVANIA
Allentown, 18102.....1202 Washington Street
Philadelphia, 19102.....1800 Two Penn Center Plaza
Pittsburgh, 15220.....875 Greentree Road
York, 17405.....P. O. Box 1968

TENNESSEE
Chattanooga, 37402.....1237 Volunteer Building
Knoxville (Alcoa, Tenn.), 37701.....P. O. Box 68
Memphis, 38117.....4515 Poplar Avenue
Nashville, 37215.....235 Wilson-Bates Building

TEXAS
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Houston, 77002.....1310 Southern National Bank Building
Lubbock, 79405.....203 Fields Building

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VIRGINIA
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WASHINGTON
Seattle, 98104.....1401 Madison Street
Spokane, 99201.....610 Fidelity Building

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WISCONSIN
Milwaukee, 53233.....2040 West Wisconsin Avenue
Wausau, 54401.....203½ Fourth Street

NEW YORK EXPORT OFFICE
New York, N. Y., 10017.....200 Park Avenue

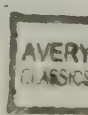
FOREIGN SALES OFFICES

LAUSANNE, SWITZERLAND
Alcoa International, S. A.....61 Avenue d'Ouchy

LIMA, PERU
Alcoa International, Limited.....Apartado 571

ALUMINUM COMPANY OF AMERICA

General Offices, 1501 Alcoa Building, Pittsburgh, Pa. 15219



GRAVEL STOPS AND COPINGS



gravel stop types E and EE 2

gravel stop types F and FF 3

gravel stop type H 4

coping types G-8 and G-12 4

gravel stop system type E

FEATURES

- Extrusion incorporates gravel stop, fascia and cant strip into one piece.
- Pitch dam prevents roofing compounds from dripping down walls.

COMPONENTS

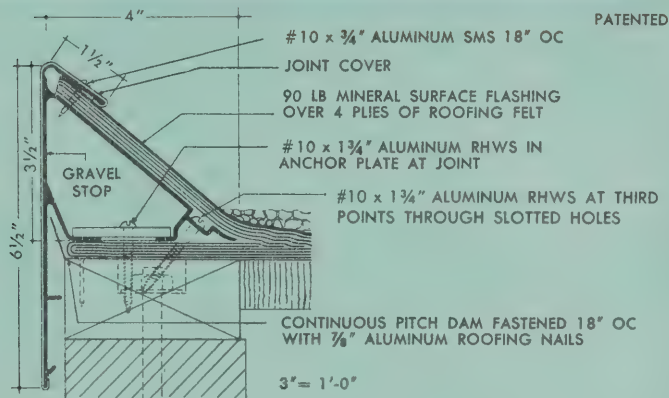
ITEM	ALLOY	SIZE
6½" Gravel Stop Section 68755; 6063-T42, extruded;		9'-11½" long; wt per ft—1.606 lb
Welded mitered inside, outside corner 68755; 6063-T42, extruded;		1'-6" x 1'-6"
Outside joint cover; 3003-O, formed sheet; .032" thick x 4" wide		
Pitch dam angle; 3003-H14, formed sheet; .025" thick x ⅞" x ⅞" x 8'-0" long		
Predrilled anchor plate; 3003-H18, sheet; ⅜" thick x 2" x 4"		
Round head screws; 2024-T4; SMS #10 x ¾"; WS #10 x 1¼"		
Roofing nails; 6061-T913; ⅝" long		

Note: Store all components in clean, dry storage area. Prevent contact with corrosive or staining materials.

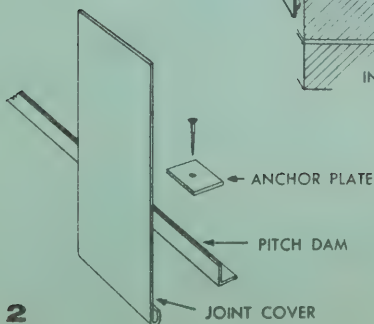
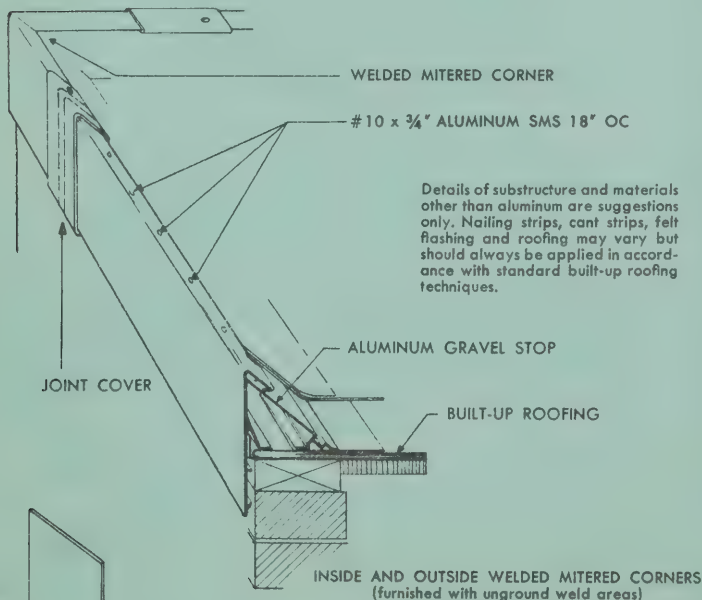
FINISHES AVAILABLE

All sections are provided with a standard mill finish, unless otherwise specified. An Alumilite® treatment gives a superior appearance if handling and mill marks are thoroughly removed before finishing. Other special finishes and color are subject to inquiry.

*Trade Name of Aluminum Company of America



PATENTED



gravel stop system type EE

FEATURES

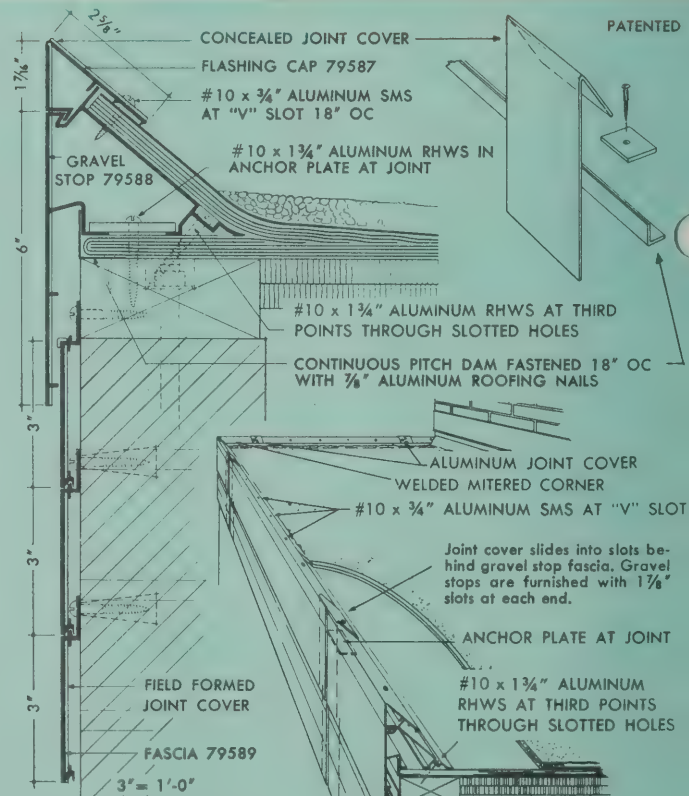
- Concealed joint covers fit behind fascia to assure smooth fascia line.
- System accommodates fascia and soffit extensions if desired.
- Pitch dam prevents dripping roof compounds from marking walls.
- Stop includes integral cant strip, separate self-aligning flashing cap.

COMPONENTS

ITEM	ALLOY	SIZE
Gravel Stop Section 79588; 6063-T42, extruded;		9'-11½" long; wt per ft—1.387 lb
Flashing Cap Section 79587; 6063-T42, extruded;		9'-11½" long; wt per ft—.468 lb
Fascia Section 79589 (optional); 6063-T42, extruded;		9'-11½" long; wt per ft—.316 lb
Soffit Section 79590 (optional); 6063-T42, extruded;		9'-11½" long; wt per ft—.443 lb
Welded mitered inside, outside corners 79588 and 79587; 6063-T42, extruded;		1'-6" x 1'-6"
Concealed joint cover; 3003-H14, formed sheet; .032" thick x 4" wide		
Pitch dam angle; 3003-H14, formed sheet; .025" thick x ⅞" x ⅞" x 8'-0"		
Predrilled anchor plate; 3003-H18, sheet; ⅜" thick x 1¼" x 4"		
Round head screws; 2024-T4; SMS #10 x ¾"; WS #10 x 1¼"		
Roofing nails; 6061-T913; ⅝" long		

Note: Store all components in clean, dry storage area. Prevent contact with corrosive or staining materials.

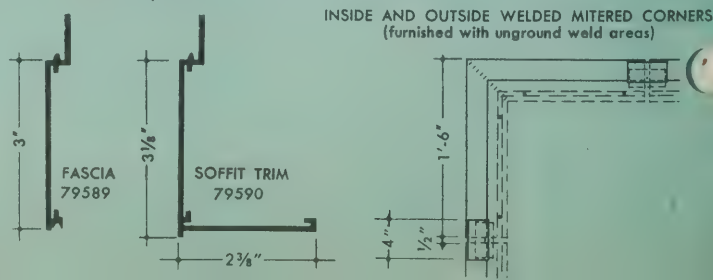
FINISHES AVAILABLE (same as Gravel Stop Type E)



PATENTED

Details of substructure and materials other than aluminum are suggestions only. Nailing strips, cant strips, felt flashing and roofing may vary but should always be applied in accordance with standard built-up roofing techniques.

Ends preslotted 17½" for concealed joint cover



gravel stop system type F

COMPONENTS

GRAVEL STOP—ALLOY 6063-T42; LENGTH—9'11½"

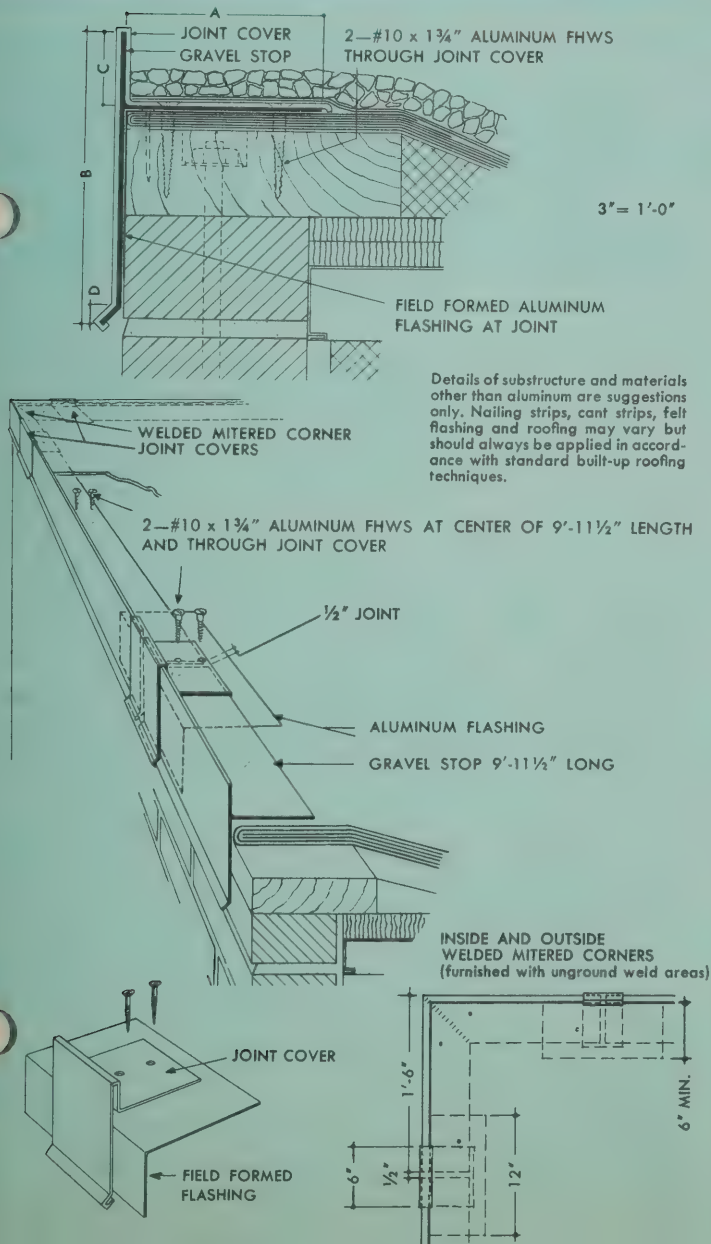
GRAVEL STOP SECTION	DIMENSIONS—INCHES				WT PER FT, LB	JOINT COVER SECTION	WT PER PC, LB
	A	B	C	D			
42059	4	3½	5/8	¼	.697	42062	.413
87097	4	3½	1	¼	.696	87098	.430
42058	4	5	1	¼	.838	42061	.501
66588	4	6	1½	¼	.930	66589	.572
39259	4	6½	¾	¼	.978	39258	.560
87096	4	6½	1	¼	.978	87095	.571
42063	4	7¼	5/8	¼	1.315	42060	.741
84968	4	7¼	1½	¼	1.315	84969	.789
†112331	4	8	3¾	¾	1.811	†125571	1.258

†Has rounded drip end

ITEM	ALLOY	SIZE
Welded mitered inside, outside corners; 6063-T42, extruded; 1½" x 1½" Flashing; 3003-H14, sheet; .025" thick x 12" wide		
Flathead wood screws; 2024-T4; #10 x 1¼"		
Roofing nails; 6061-T913; 1½" long		

Note: Store all components in clean, dry storage area. Prevent contact with corrosive or staining materials.

FINISHES AVAILABLE (same as for Gravel Stop Type E)



gravel stop system type FF

FEATURES

- Concealed joint covers fit behind fascia to assure smooth fascia line.
- System accommodates fascia and soffit extensions if desired.
- Pitch dam prevents roofing compound from dripping down walls.

COMPONENTS

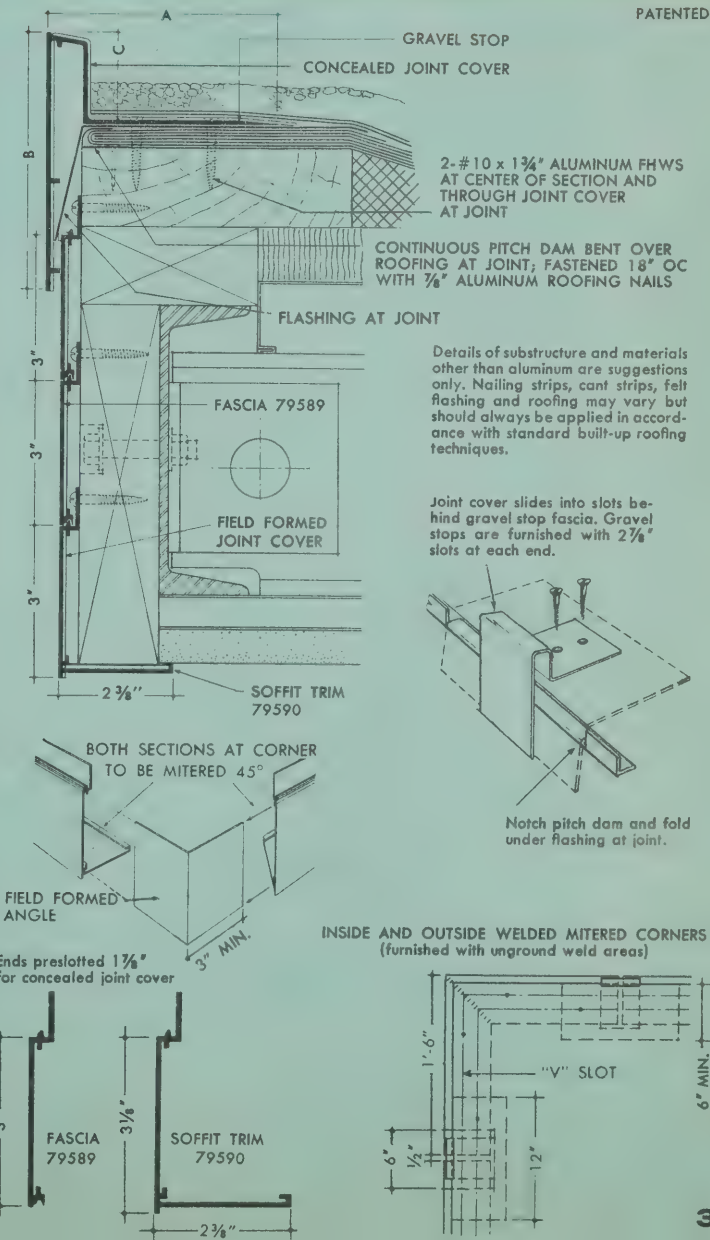
GRAVEL STOP—ALLOY 6063-T42; LENGTH—9'11½"

GRAVEL STOP SECTION NO.	DIMENSIONS—INCHES			WT PER FT, LB
	A	B	C	
79591	4¾	4½/16	¾	1.126
79592	4¾	5½/16	1¾	1.129

ITEM	ALLOY	SIZE
Fascia Section 79589 (optional); 6063-T42, extruded; 9'11½" long; wt per ft—.316 lb		
Soffit Section 79590 (optional); 6063-T42, extruded; 9'11½" long; wt per ft—.443 lb		
Welded mitered inside, outside corners; 6063-T42, extruded; 1½" x 1½" Concealed joint cover; 3003-H14, formed sheet; .051" thick x 6" wide		
Pitch dam angle; 3003-H14, formed sheet; .025" thick x 7/8" x 7/8" x 8'0" Flashing; 3003-H14, sheet; .025" thick x 12" wide		
Screws; 2024-T4; RHWS—#10 x 1½"; FHWS—#10 x 1¼"		
Roofing nails; 6061-T913; 7/8" long		

Note: Store all components in clean, dry storage area. Prevent contact with corrosive or staining materials.

FINISHES AVAILABLE (same as for Gravel Stop Type E)



gravel stop type H**FEATURES**

- Gravel stop accommodates fascia and soffit extensions if desired.

COMPONENTS

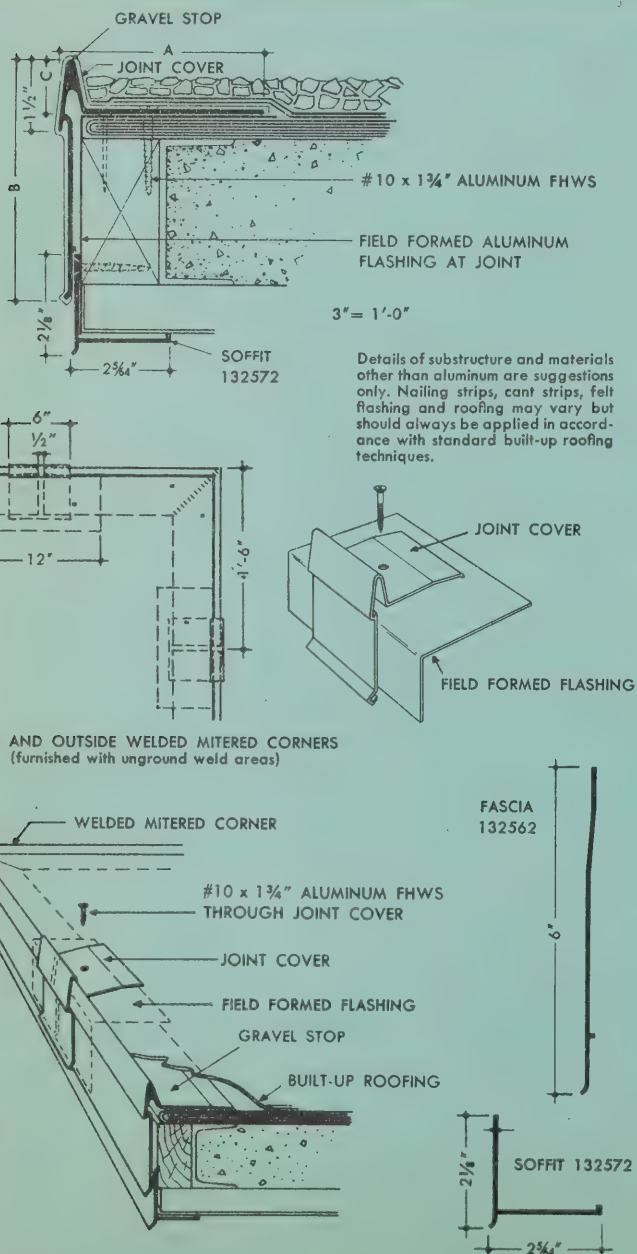
GRAVEL STOP—ALLOY 6063-T42; LENGTH—9'-11½"

GRAVEL STOP SECTION	DIMENSIONS—INCHES			WT PER FT, LB	JOINT COVER SECTION	WT PER PC, LB
111291	4	7 ¹¹ / ₁₆	1	1.853	111301	.650
117861	4	4 ³¹ / ₃₂	1	1.445	117871	.502

ITEM	ALLOY	SIZE
Fascia Section 132562 (optional); 6063-T42, extruded; 9'-11½" long; wt per ft—.661 lb		
Soffit Section 132572 (optional); 6063-T42, extruded; 9'-11½" long; wt per ft—.445 lb		
Welded mitered inside, outside corners; 6063-T42, extruded; 1'-6" x 1'-6"		
Flashing; 3003-H14, sheet; .025" thick x 12" wide		
Flathead wood screws; 2024-T4; WS #10 x 1½"; WS #10 x 1¾"		
Roofing nails; 6061-T913; 1¾" long		

Note: Store all components in clean, dry storage area. Prevent contact with corrosive or staining materials.

FINISHES AVAILABLE (same as for Gravel Stop Type E)

**coping types G-8 and G-12****FEATURES**

- Gutter bars beneath coping assure watertight joints and provide firm anchorage.

COMPONENTS

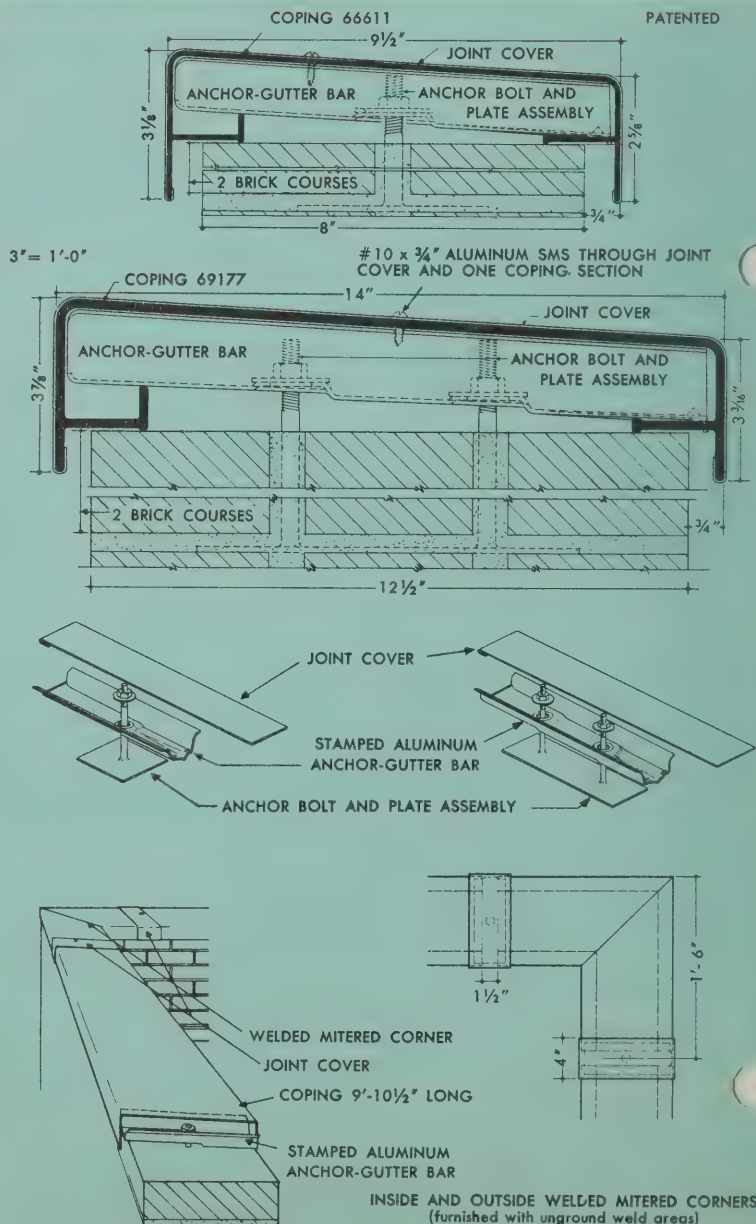
ITEM	ALLOY	SIZE
Coping G-8, Section 66611 (8" wall); 6063-T42, extruded; 9'-10½" long; wt per ft—2.412 lb		
Coping G-12, Section 69177 (12" wall); 6063-T42, extruded; 9'-10½" long; wt per ft—3.702 lb		
Welded mitered inside, outside corners 66611, 69177; 6063-T42, extruded; 1'-6" x 1'-6"		

Gutter bars G-8, G-12; 5052-H34, stamped sheet; .081" thick
Anchor bolt and plate assemblies G-8, G-12; Steel, electro zinc plated
Sheet metal screws; 2024-T4; #10 x ¾"
Joint covers; 3003-O formed sheet; .032" thick x 4" wide

Note: Store all components in clean, dry storage area. Prevent contact with corrosive or staining materials.

FINISHES AVAILABLE

All sections are provided with a standard mill finish, unless otherwise specified. An Alumilite treatment gives a superior appearance if handling and mill marks are thoroughly removed before finishing. Other special finishes and color are subject to inquiry.



Patented

AIA FILE NO. 12-C-3

FEATURES

- Extruded section incorporates gravel stop, fascia and cant strip into one piece; the cant firmly supports flashing.
- Pitch dam prevents roofing compounds from dripping down walls.
- Complete line of accessories are available.

COMPONENTS

ITEM	ALLOY	SIZE
6 1/2" Gravel Stop Section 68755	6063-T42, extruded	9'-11 1/2" long; wt per ft—1.606 lb
Welded mitered inside corner 68755	6063-T42, extruded	1'-6" x 1'-6"
Welded mitered outside corner 68755	6063-T42, extruded	1'-6" x 1'-6"
Outside joint cover	3003-O, formed sheet	.032" thick x 4" wide
Pitch dam angle	3003-H14, formed sheet	.025" thick x 7/8" x 7/8" x 8'-0" long
Predrilled anchor plate	3003-H18, sheet	3/16" thick x 2" x 4"
Round head screws	2024-T4	SMS #10 x 3/4"; WS #10 x 1 3/4"
Roofing nails	6061-T913	7/8" long

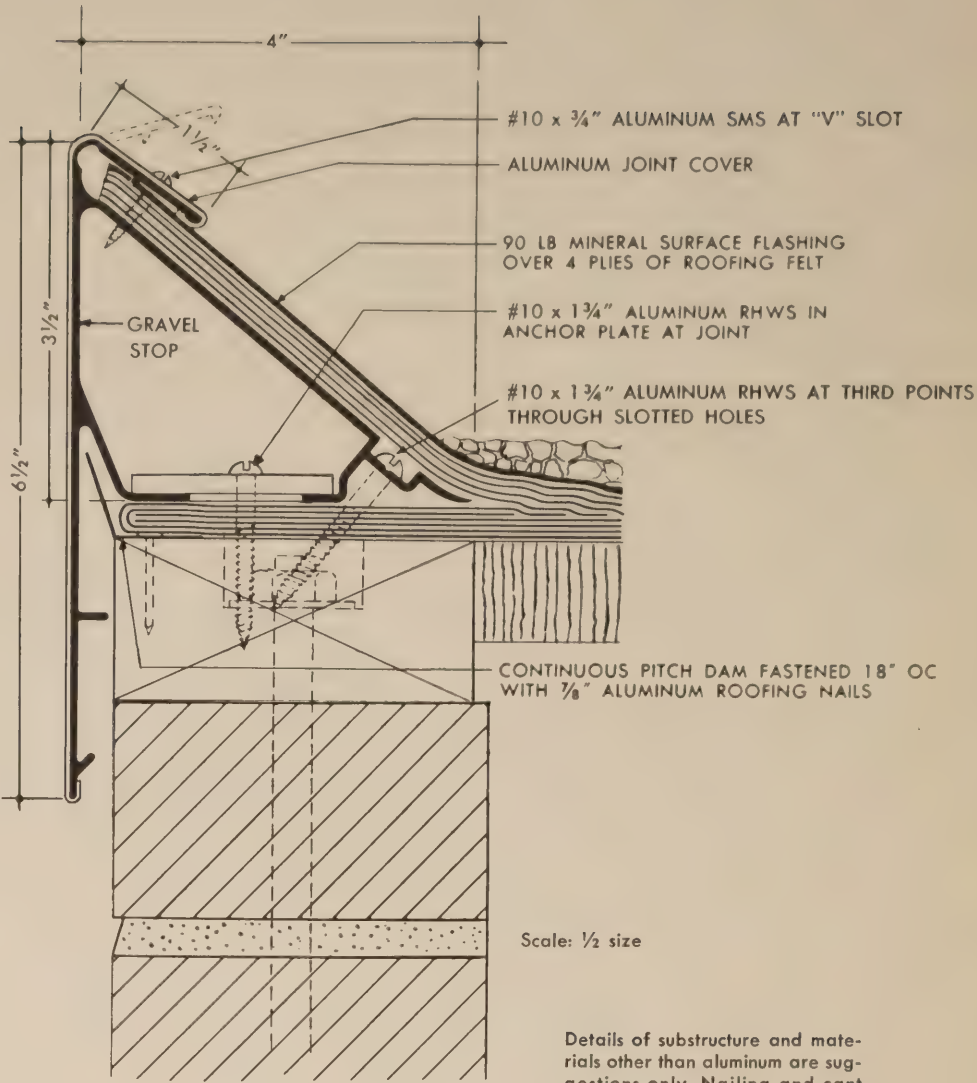
FINISHES AVAILABLE

- Plain mill finish.
- Alumilite* finish (to obtain best appearance, handling and mill marks must be thoroughly removed before finishing).
- Color finishes subject to special inquiry.

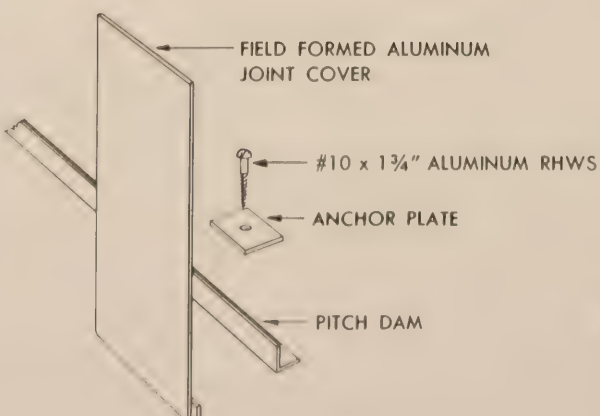
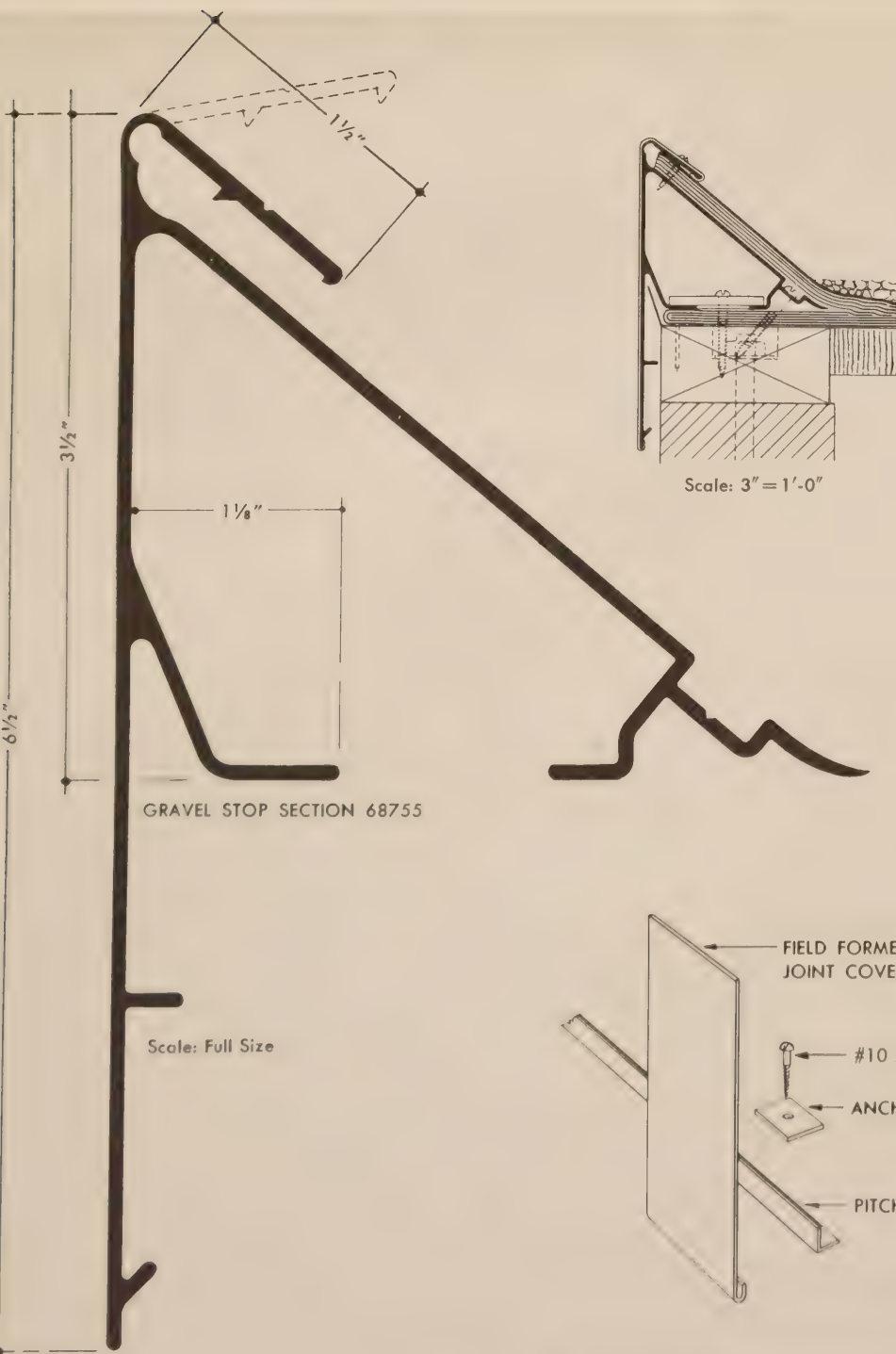
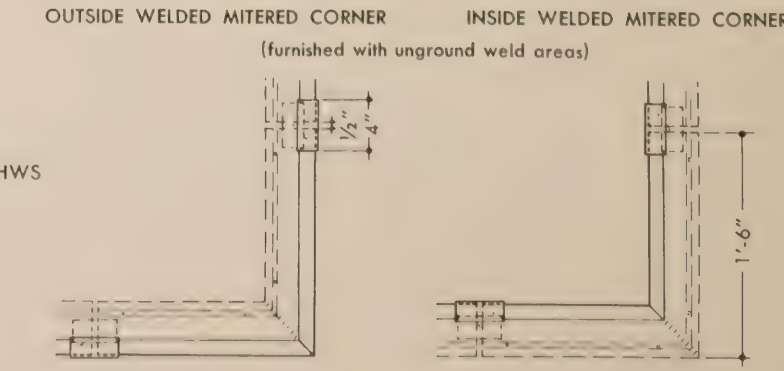
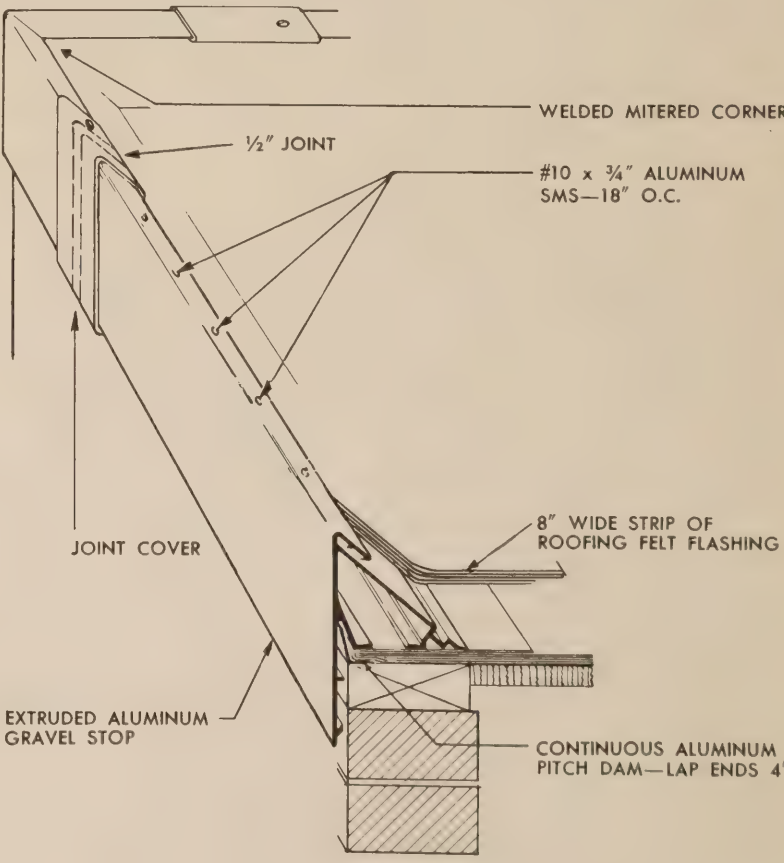
INSTALLATION PROCEDURE

- Before installing gravel stop system, wood nailers should be installed level, plumb and straight.
1. Install aluminum pitch dam angles in plastic roofing cement, and secure with aluminum nails 18" on center. Lap angle ends 4".
 2. Roofing felts should be mopped on over wood nailers in accordance with roofing manufacturer's recommendations.
 3. Screw mitered corner in place through slot located at bottom of integral cant strip.
 4. Loosely screw anchor plate in place.
 5. Place gravel stop section anchor lugs under anchor plate; allow 1/2" for expansion joint.
 6. Secure gravel stop section at third points through slot located at bottom of integral cant strip.
 7. Screw anchor plate tight.
 8. Repeat procedure until all gravel stop sections are secured in place.
 9. Apply felt strip flashing with plastic flashing cement in accordance with roofing manufacturer's specifications.
 10. Place formed lip of joint cover at joint over outside drip edge of gravel stop section, bend joint cover over flashing grip in up position.
 11. Bend flashing grips down to secure flashing and tighten joint covers.
 12. Screw joint covers in place; screw flashing grips 18" on centers in down position.
- Note: Store all components in clean, dry storage area. Prevent contact with corrosive or staining materials.

*Trade Name of Aluminum Company of America



Details of substructure and materials other than aluminum are suggestions only. Nailing and cant strips, felt flashing and roofing may vary but should always be applied in accordance with standard built-up roofing techniques.



FEATURES

- Concealed joint covers insert in slots behind fascia to assure smooth fascia line.
- System accommodates fascia and soffit extensions if desired.
- Integral cant strip is leakproof and prevents break-through of flashing.
- Separate self-aligning flashing cap installs conveniently and grips flashing firmly.
- Pitch dam prevents dripping roof compounds from marking walls.

COMPONENTS

ITEM	ALLOY	SIZE
Gravel Stop Section 79588	6063-T42, extruded	9'11½" long; wt per ft—1.387 lb
Flashing Cap Section 79587	6063-T42, extruded	9'11½" long; wt per ft—.468 lb
Fascia Section 79589 (optional)	6063-T42, extruded	9'11½" long; wt per ft—.316 lb
Soffit Section 79590 (optional)	6063-T42, extruded	9'11½" long; wt per ft—.443 lb
Welded mitered inside corners 79588 and 79587	6063-T42, extruded	1'6" x 1'6"
Welded mitered outside corners 79588 and 79587	6063-T42, extruded	1'6" x 1'6"
Concealed joint cover	3003-H14, formed sheet	.032" thick x 4" wide
Pitch dam angle	3003-H14, formed sheet	.025" thick x 7/8" x 7/8" x 8'0" long
Predrilled anchor plate	3003-H18, sheet	3/16" thick x 1 3/4" x 4"
Round head screws	2024-T4	SMS—#10 x 3/4"; WS—#10 x 1 1/2"; WS—#10 x 1 3/4"
Roofing nails	6061-T913	7/8" long

FINISHES AVAILABLE

- Plain mill finish
- Alumilite* finish (to obtain best appearance, handling and mill marks must be thoroughly removed before finishing)
- Color finishes subject to special inquiry

INSTALLATION PROCEDURE

Installation procedures for entire assembly including soffit and fascia sections are described below. For installation of gravel stop without fascia or soffit sections, omit steps 3, 4, 5, 6.

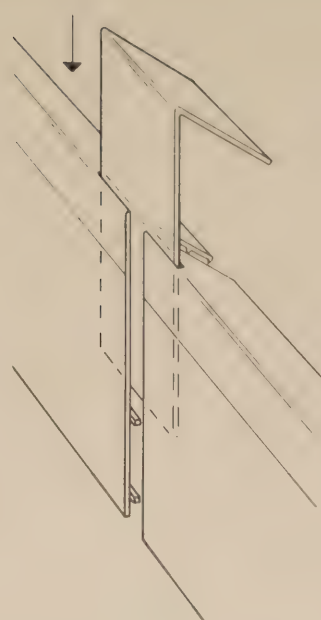
Before installing gravel stop system, wood nailers should be installed level, plumb and straight.

1. Install aluminum pitch dam angles in plastic roofing cement, and secure with aluminum nails 18" on center. Lap angle ends 4".
2. Roofing felts should be mopped on over wood nailers in accordance with roofing manufacturer's recommendations.
3. Install soffit and/or fascia sections prior to placement of gravel stop section starting with bottom section and securing each succeeding section over the one below. Provide ½" minimum overlap between gravel stop and outermost face of soffit or fascia extensions.
4. Cut all corner pieces of soffit or fascia sections so that their end joints will be in line with those of the welded, mitered gravel stop corner sections. Miter one end and slot other end to receive concealed joint cover described in step 6. Align corner pieces by inserting preformed sheet corner angles as shown in detail A. If desired, angle insert can be secured in place by means of an adhesive or by deforming the securing lips or the angle itself. Care should be exercised not to damage exposed faces.
5. Secure soffit or fascia corner assemblies to building with two fasteners on either side of corner. Place fasteners through holes drilled in upper leg at "V" slot.
6. Allowing ½" expansion joints between all sections, secure adjoining soffit and/or fascia sections (9'11½" long) at third points through slotted holes cut in upper leg at "V" slot.
7. Insert inside joint covers through slots cut at ends of sections. If lengths other than standard are used, slots must be cut by installer.
8. Secure mitered gravel stop corner in place through holes drilled through "V" slot located at bottom of integral cant strip.
9. Loosely screw anchor plate in place.
10. Place gravel stop section anchor lugs under anchor plate; allow ½" for expansion joint.
11. Secure gravel stop section at third joints through slotted holes cut in bottom of integral cant strip at "V" slot.
12. Screw anchor plate tight.
13. Repeat procedure until all gravel stop sections are secured in place.
14. Apply felt strip flashing with plastic flashing cement in accordance with roofing manufacturer's specifications.
15. Position flashing cap and bend down to secure flashing felts. Fasten 18" on centers.
16. Same as step 6.
17. Fasten joint cover with No. 10 aluminum sheet metal screw to only one gravel stop section.

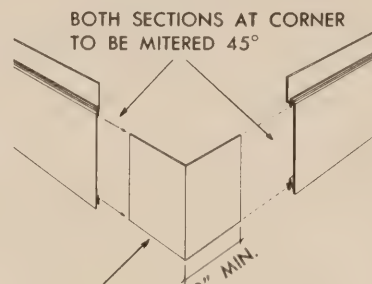
Note: Store all components in clean, dry storage area. Prevent contact with corrosive or staining materials.

*Trade Name of Aluminum Company of America

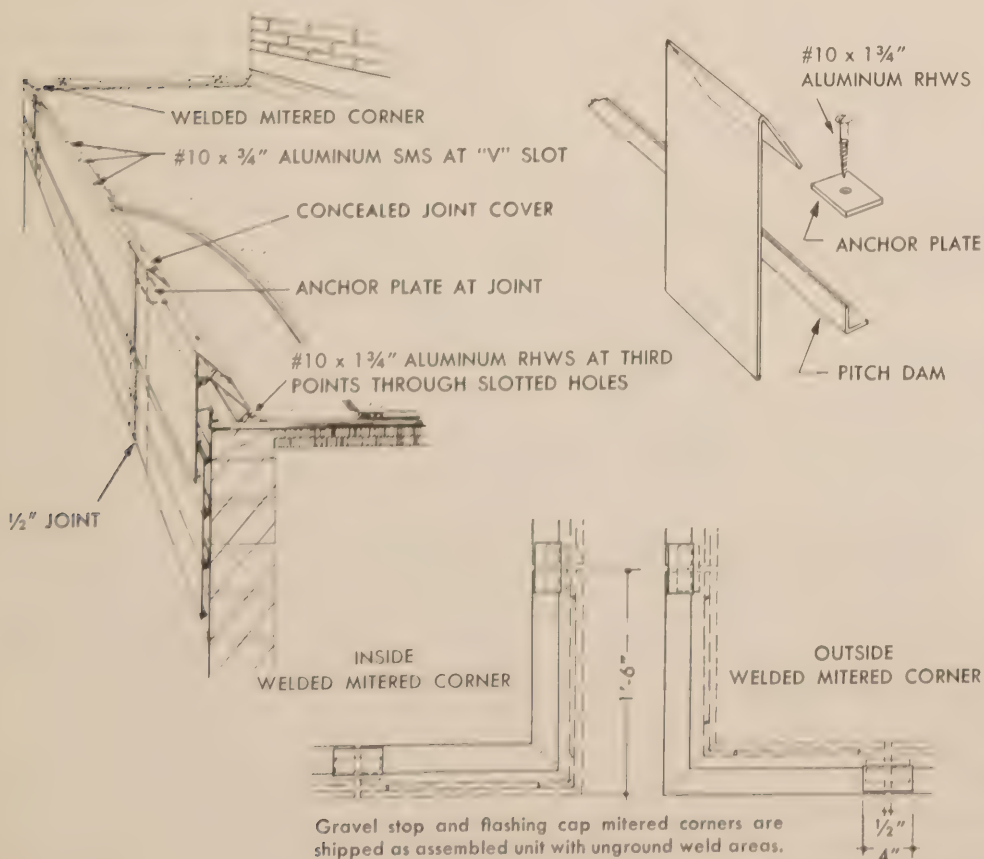
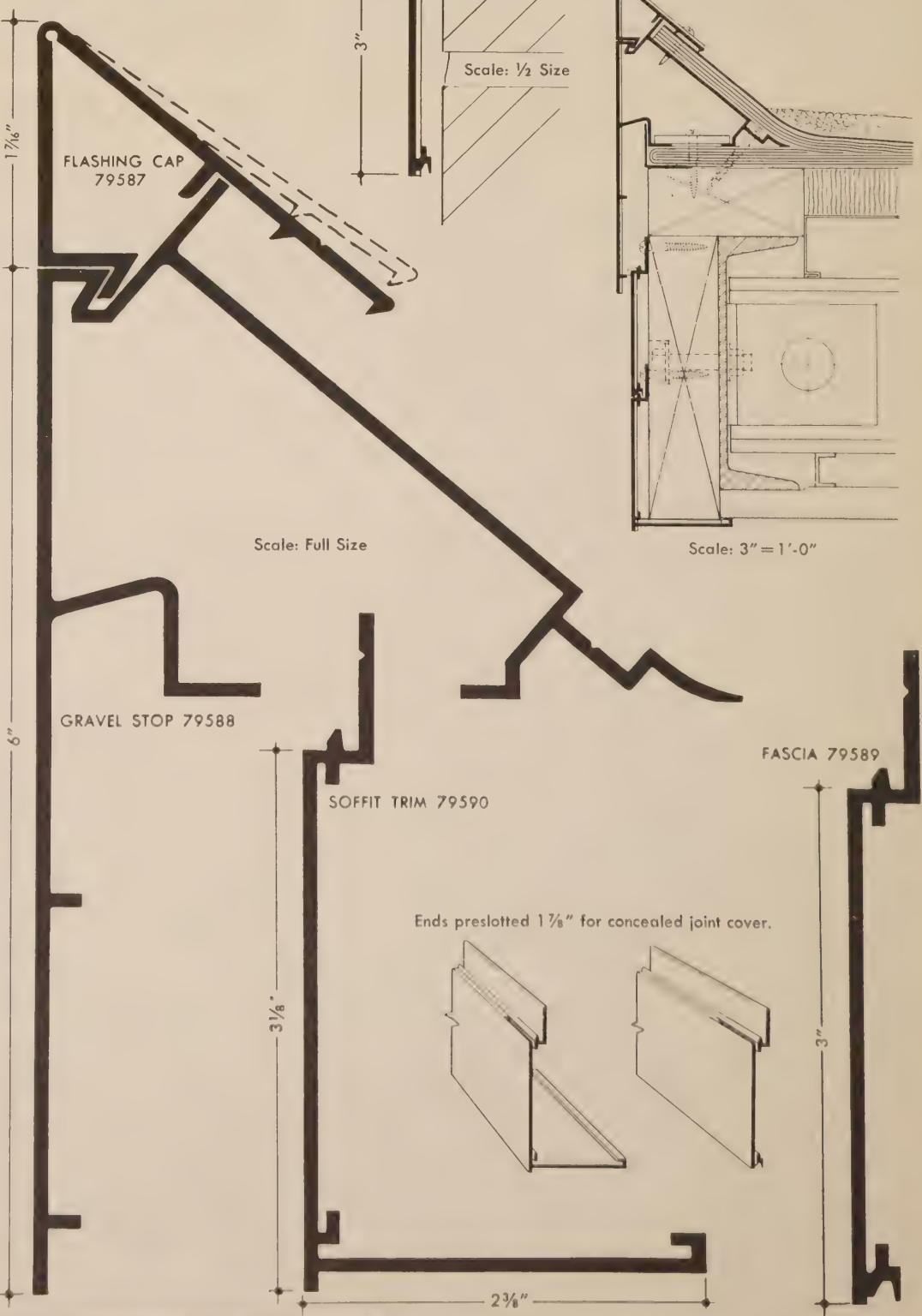
Patented



Joint cover slides into slots behind gravel stop fascia. Gravel stops are furnished with 1 7/8" slots at each end.



FIELD FORMED ANGLE
DETAIL A



FEATURES

- System is inexpensive and easy to install.
- Effectiveness depends on proper flashing

COMPONENTS

ALLOY 6063-T42						LENGTH—9'11½"	
GRAVEL STOP SECTION	DIMENSIONS—INCHES				WT PER FT, LB	JOINT COVER SECTION	WT PER PC, LB
	A	B	C	D			
42059	4	3½	¾	¼	.697	42062	.413
87097	4	3½	1	¼	.696	87098	.430
42058	4	5	1	¼	.838	42061	.501
66588	4	6	1½	¼	.930	66589	.572
39259	4	6½	¾	¼	.978	39258	.560
87096	4	6½	1	¼	.978	87095	.571
42063	4	7¾	¾	¼	1.315	42060	.741
84968	4	7¾	1½	¼	1.315	84969	.789
†112331	4	8	3¼	¾	1.811	†125571	1.258

†Has rounded drip end

ITEM	ALLOY	SIZE
Welded mitered inside corners	6063-T42, extruded	1'6" x 1'6"
Welded mitered outside corners	6063-T42, extruded	1'6" x 1'6"
Flashing	3003-H14, sheet	.025" thick x 12" wide
Flathead wood screws	2024-T4	#10 x 1¼"
Roofing nails	6061-T913	1½" long

FINISHES AVAILABLE

- Plain mill finish
- Alumilite* finish (to obtain best appearance, handling and mill marks must be thoroughly removed before finishing)
- Color finishes subject to special inquiry

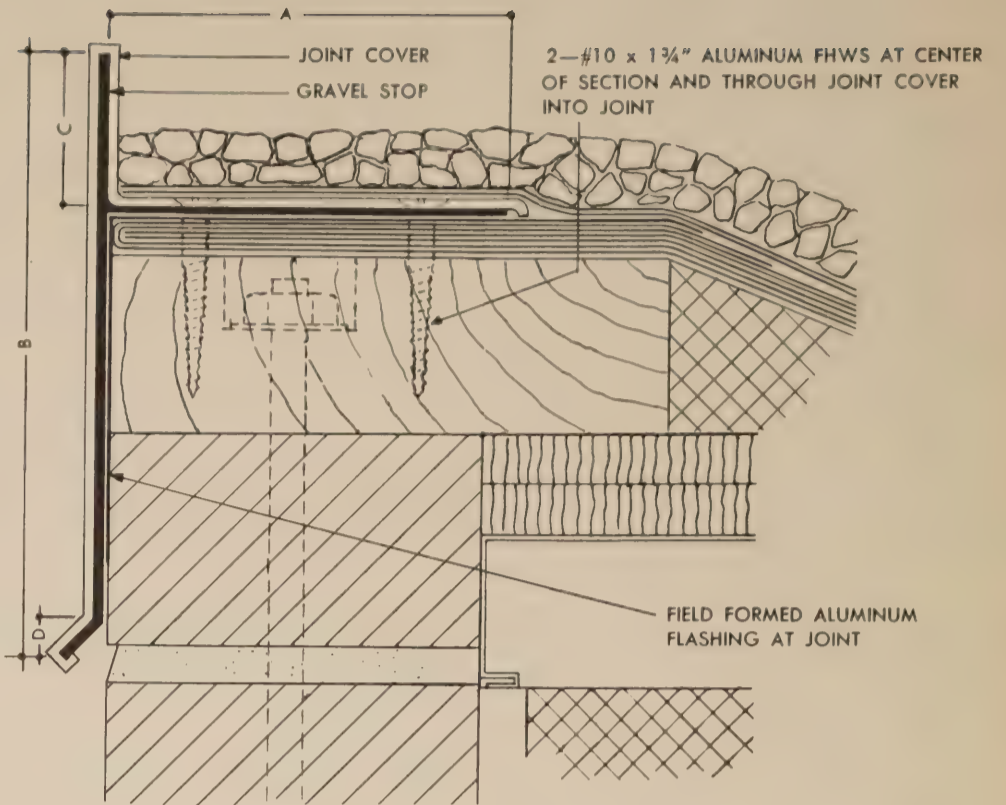
INSTALLATION PROCEDURE

Before installing gravel stop system, wood nailers should be installed level, plumb and straight. Roofing felts should be mopped on over wood nailers in accordance with roofing manufacturer's recommendations.

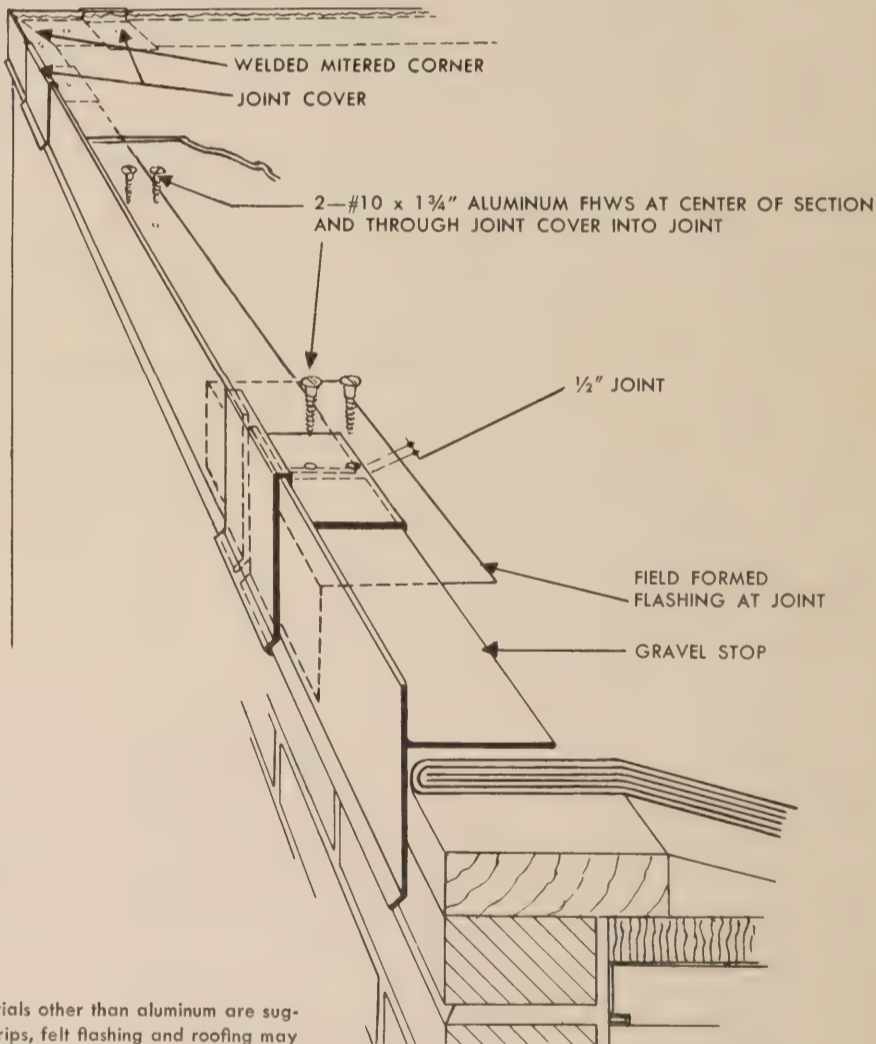
1. Center sheet aluminum flashing at expansion joint, 1'6" from face of corner; nail in place.
2. Screw mitered corner in place.
3. Slide joint cover to temporary position.
4. Place section of extruded gravel stop next to mitered corner; allow ½" for expansion joint.
5. Screw gravel stop section at mid-point at two places.
6. Place bead of plastic roofing sealant (such as Alcoa Roofing Sealant) on vertical and horizontal surfaces of gravel stop at joint.
7. Slide joint cover over expansion joint and screw in place.
8. Repeat procedure for successive gravel stop section installations. Sheet flash all expansion joints.
9. Apply felt strip flashing with plastic roofing cement in accordance with roofing manufacturer's specifications.

Note: Store all components in clean, dry storage area. Prevent contact with corrosive or staining materials.

*Trade Name of Aluminum Company of America



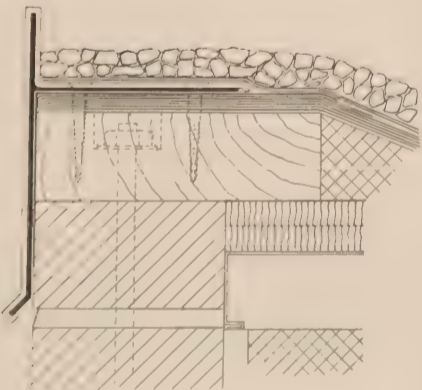
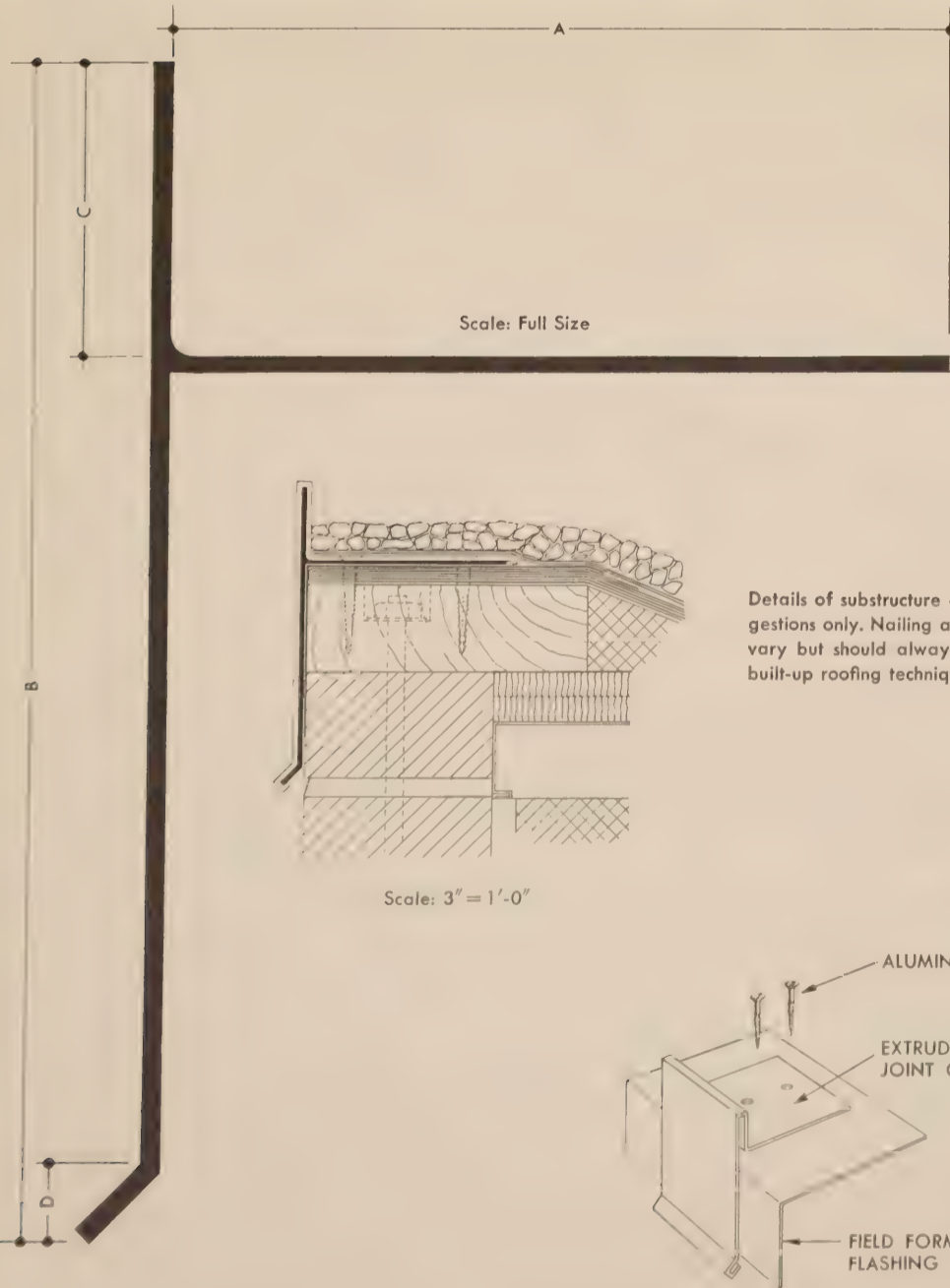
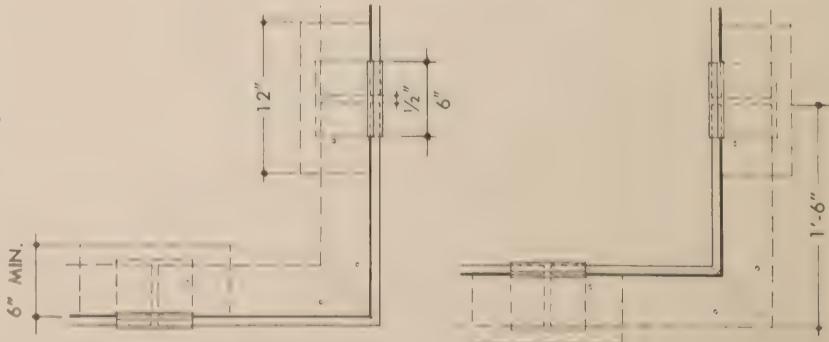
Scale: ½ size



OUTSIDE WELDED MITERED CORNER

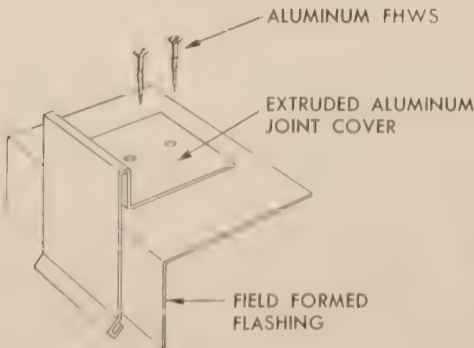
INSIDE WELDED MITERED CORNER

(furnished with unground weld areas)



Scale: 3" = 1'-0"

Details of substructure and materials other than aluminum are suggestions only. Nailing and cant strips, felt flashing and roofing may vary but should always be applied in accordance with standard built-up roofing techniques.



FORM 71-11586

FEATURES

- Gravel stop accommodates fascia and soffit extensions if desired.
- Extruded joint cover assures snug fit.

COMPONENTS

ALLOY 6063-T42; LENGTH—9'-11½"

GRAVEL STOP SECTION	DIMENSIONS—INCHES			WT PER FT, LB	JOINT COVER SECTION	WT PER PC, LB
	A	B	C			
111291	4	7 11/16	1	1.853	111301	.65
117861	4	4 1/2	1	1.445	117871	.502

ITEM	ALLOY	SIZE
Fascia Section 132562 (optional)	6063-T42, extruded	9'-11½" long; wt per ft—.661 lb
Soffit Section 132572 (optional)	6063-T42, extruded	9'-11½" long; wt per ft—.445 lb
Welded mitered inside corners	6063-T42, extruded	1'-6" x 1'-6"
Welded mitered outside corners	6063-T42, extruded	1'-6" x 1'-6"
Flashing	3003-H14, sheet	.025" thick x 12" wide
Flathead wood screws	2024-T4	WS #10 x 1½"; WS #10 x 1¾"
Roofing nails	6061-T913	1½" long

FINISHES AVAILABLE

- Plain mill finish.
- Alumilite* finish (to obtain best appearance, handling and mill marks must be thoroughly removed before finishing).
- Color finishes subject to special inquiry.

INSTALLATION PROCEDURE

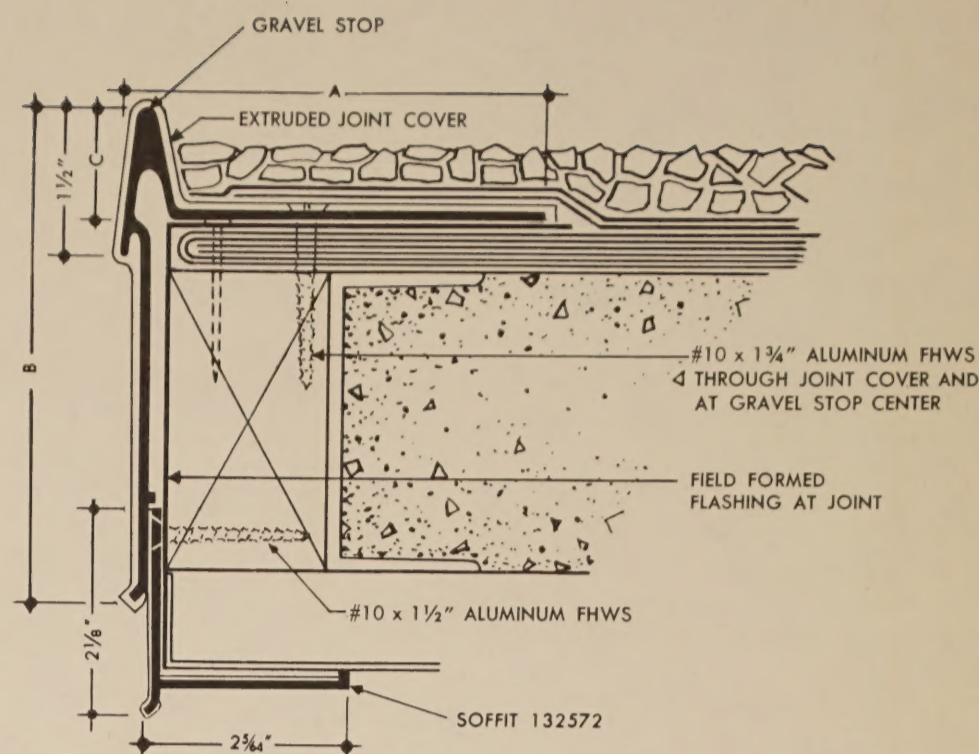
Installation procedures for the assembly including soffit and fascia sections are described below. For installation of gravel stop without soffit or fascia, omit steps 2, 3, 4.

Before installing gravel stop system, wood nailers should be installed level, plumb and straight. Roofing felts should be mopped on over wood nailers in accordance with roofing manufacturer's recommendations.

- Center sheet aluminum flashing at expansion joint, 1'-6" from corner.
- When soffit or fascia accessories are to be used, they must be attached to building prior to placement of gravel stop sections, preferably with fasteners through upper part of sections beneath overlap. Provide for ½" minimum lap of gravel stop over soffit or fascia.
- Beginning at corners, cut soffit or fascia sections so that their end joints will align with those of the gravel stop corner pieces. Corner edges should be mitered and joined with the aid of a field formed sheet aluminum angle inserted behind the soffit or fascia. Fasten each side of this corner assembly to the building with two screws.
- Allowing ½" expansion joints between all sections, secure remaining soffit and fascia sections at third points.
- Screw mitered corner of gravel stop in place.
- Slide joint cover to temporary position.
- Place section of gravel stop next to mitered corner, allowing ½" for expansion joint.
- Screw gravel stop section at mid-point at two places.
- Place beads of plastic roofing sealant on horizontal and back vertical surfaces of gravel stop at joint; slide joint cover over joint and fasten with screw through joint space.
- Repeat procedure for successive gravel stop section installations. Sheet-flash all expansion joints.
- Apply felt strip flashing with plastic roofing cement in accordance with roofing manufacturer's specifications.

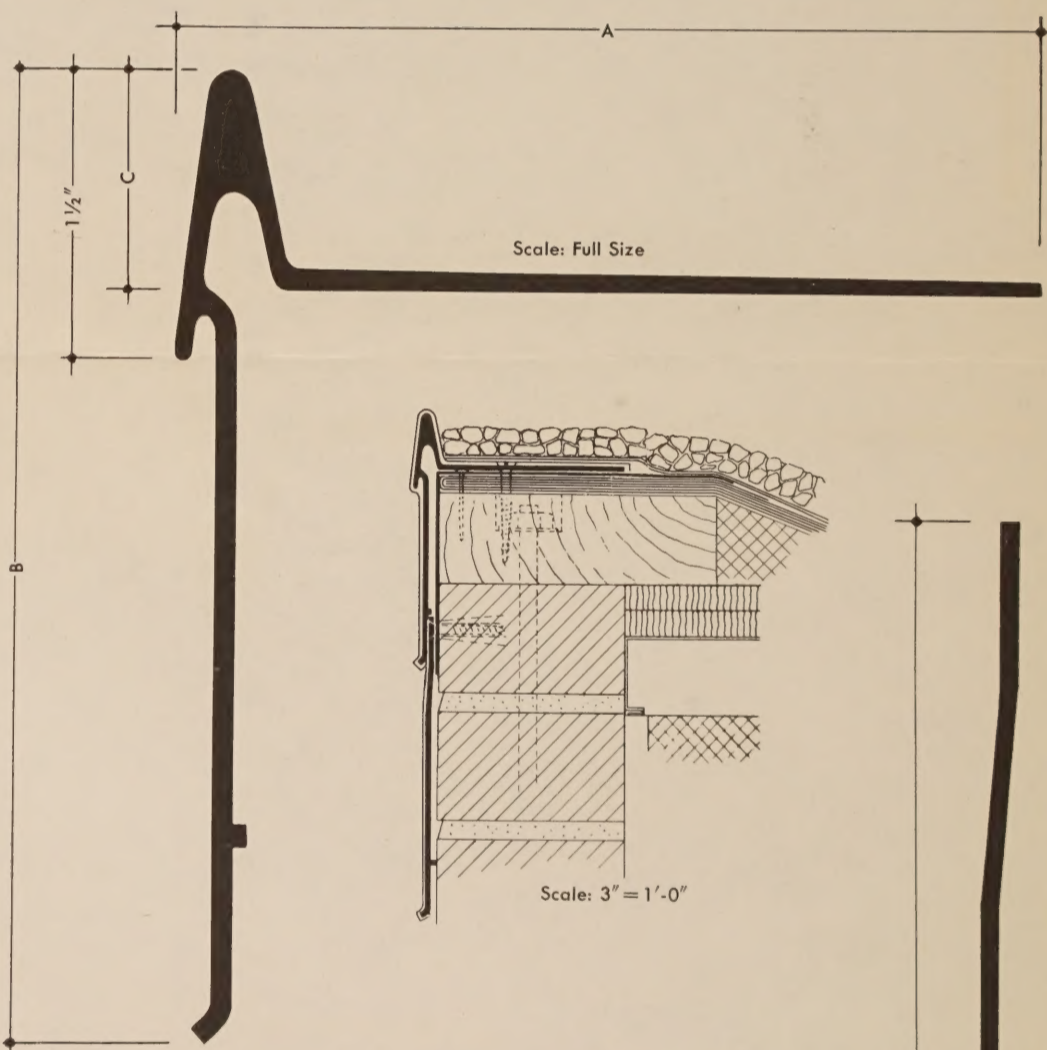
Note: Store all components in clean, dry storage area. Prevent contact with corrosive or staining materials.

*Trade Name of Aluminum Company of America

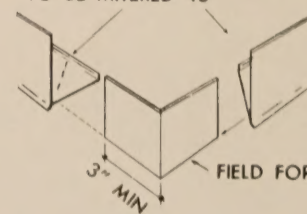


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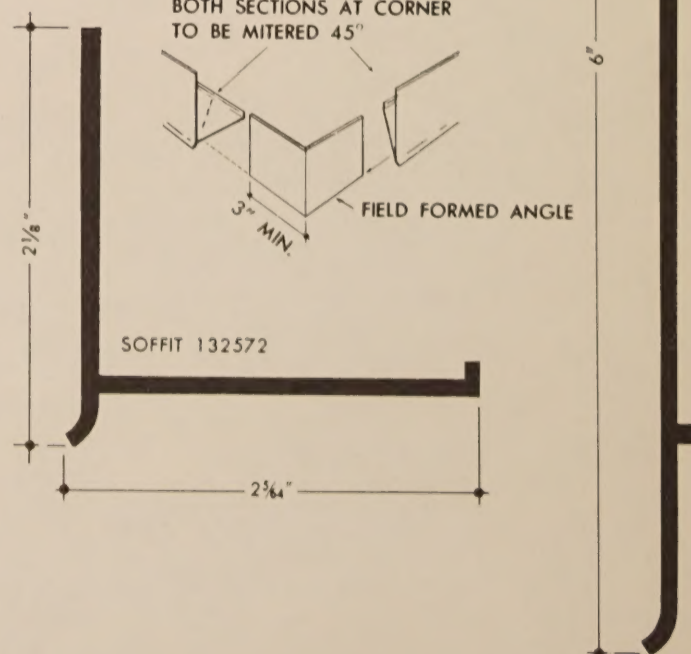
Details of substructure and materials other than aluminum are suggestions only. Nailing and cant strips, felt flashing and roofing may vary but should always be applied in accordance with standard built-up roofing techniques.



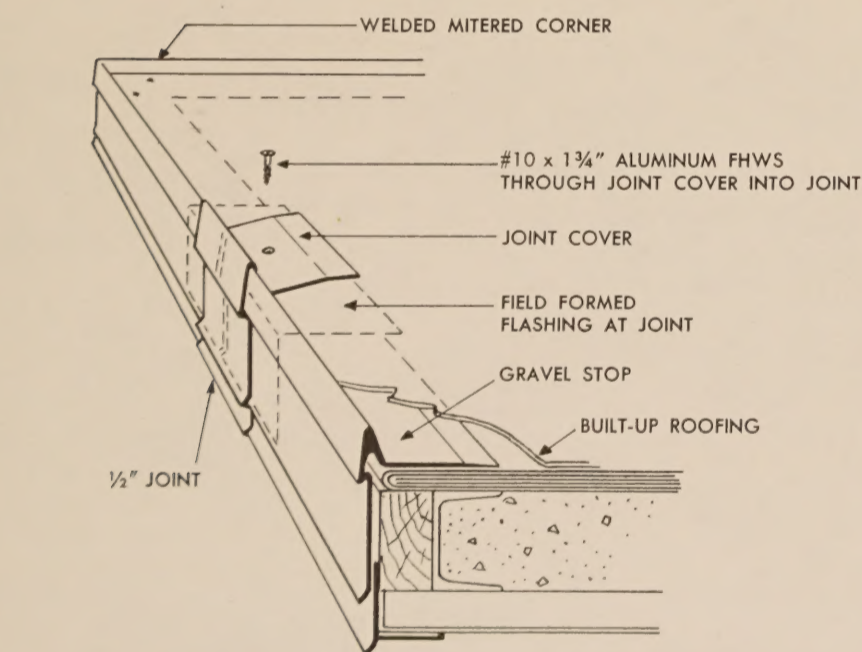
BOTH SECTIONS AT CORNER TO BE MITERED 45°



SOFFIT 132572



FASCIA 132562



#10 x 1¾" ALUMINUM FHWS

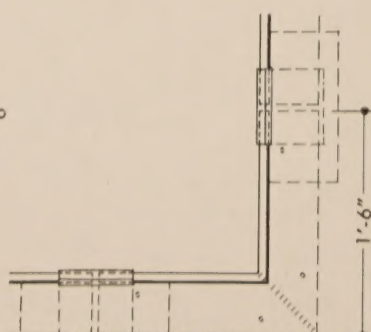
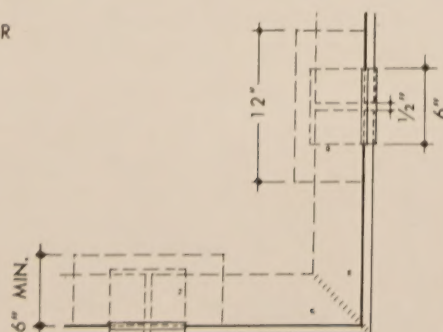
JOINT COVER

FIELD FORMED FLASHING

OUTSIDE WELDED MITERED CORNER

INSIDE WELDED MITERED CORNER

(furnished with unground weld areas)



Patented

AIA FILE NO. 12-C-3

FEATURES

- Gutter bars beneath coping assure watertight joints and provide firm anchorage.

COMPONENTS

ITEM	ALLOY	SIZE
Coping G-8, Section 66611 (8" wall)	6063-T42, extruded	9'-10½" long; wt per ft—2.412 lb
Coping G-12, Section 69177 (12" wall)	6063-T42, extruded	9'-10½" long; wt per ft—3.702 lb
Welded mitered inside corners 66611, 69177	6063-T42, extruded	1'-6" x 1'-6"
Welded mitered outside corners 66611, 69177	6063-T42, extruded	1'-6" x 1'-6"
Gutter bars G-8, G-12	5052-H34, stamped sheet	.081" thick
Anchor bolt and plate assemblies G-8, G-12	Steel, electro zinc plated	
Sheet metal screws	2024-T4	*10 x ¾"
Joint covers	3003-O formed sheet	.032" thick x 4" wide

FINISHES AVAILABLE

- Plain mill finish.
- Alumilite* finish (to obtain best appearance, handling and mill marks must be thoroughly removed before finishing).
- Color finishes subject to special inquiry.

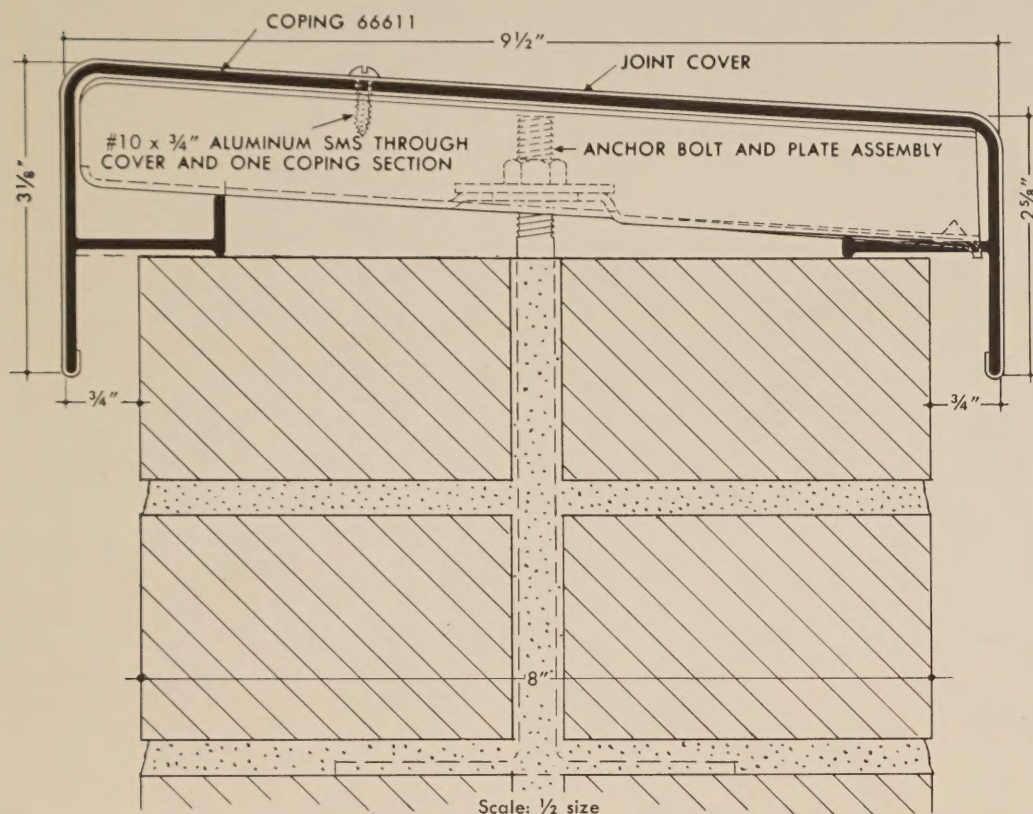
INSTALLATION PROCEDURE

Preparatory to direct installation of coping assembly, place required anchor plate and bolt assemblies during construction. Starting at designated corner, place first anchor plate and bolt assembly on center of wall 1'-6" from face of corner wall. This dimension is for 8" and 12" walls as detailed. It will change slightly when wall thicknesses vary because of other brick and joint conditions. With aid of a template, locate successive anchor plate and bolt assemblies on center of wall at 10' intervals. Top course of brick must be level, plumb and straight.

- Set mitered corner in place.
- Loosely bolt anchor gutter bar in place.
- Place bearing fins of extruded coping under anchor gutter bar, allow 1½" for expansion and construction joint.
- Fasten anchor gutter bar.
- Place formed lip of joint cover at joint over outside drip edge of coping section, bend in place. Secure joint cover to one coping section only by crimping or with aluminum sheet metal screw.
- Repeat procedure for successive coping section installations.

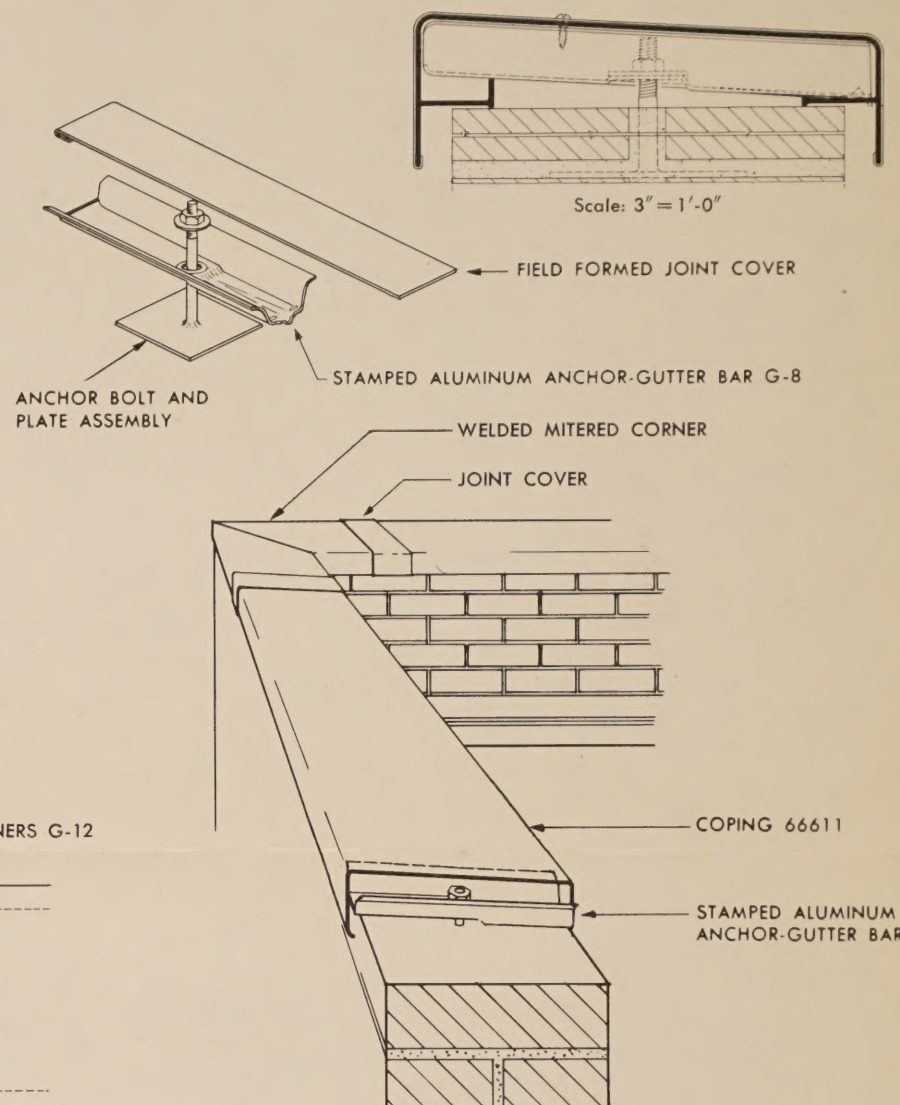
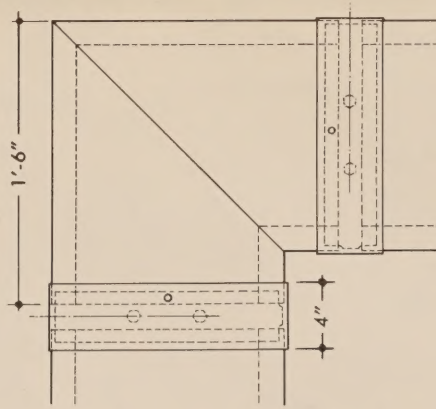
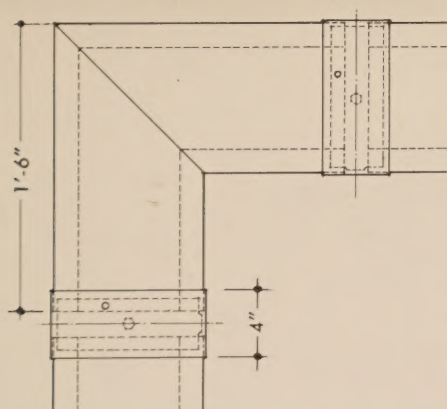
Note: Store all components in clean, dry storage area. Prevent contact with corrosive or staining materials.

*Trade Name of Aluminum Company of America



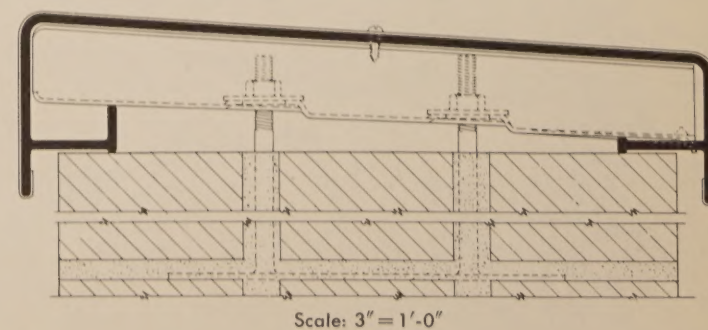
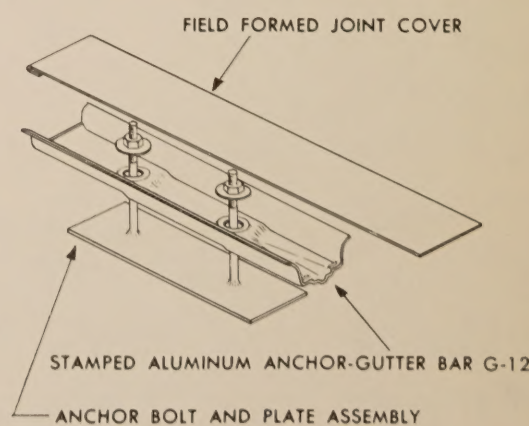
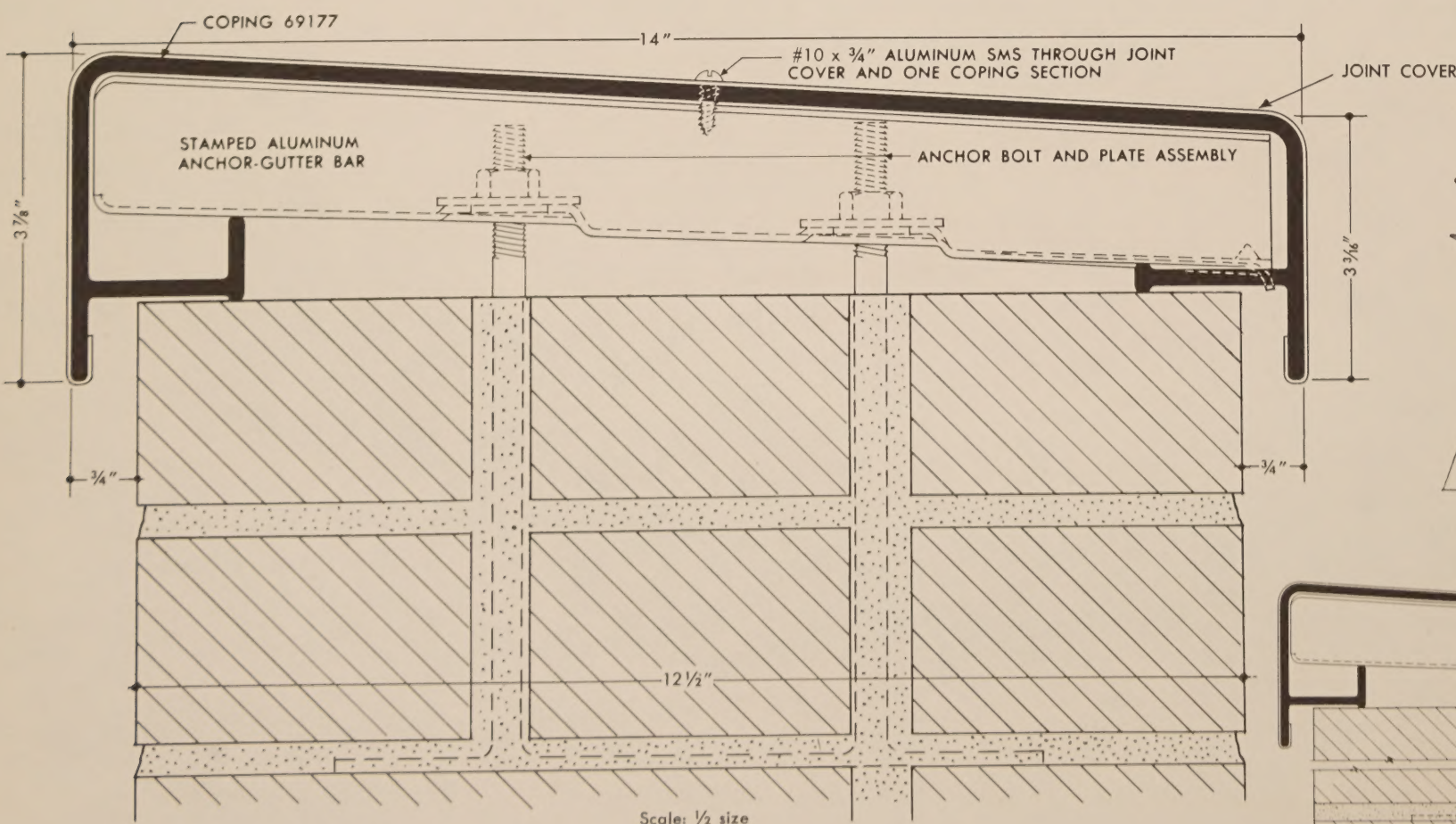
INSIDE AND OUTSIDE WELDED MITERED CORNERS G-8

INSIDE AND OUTSIDE WELDED MITERED CORNERS G-12



COPING 66611

STAMPED ALUMINUM ANCHOR-GUTTER BAR



Scale: 3" = 1'-0"

